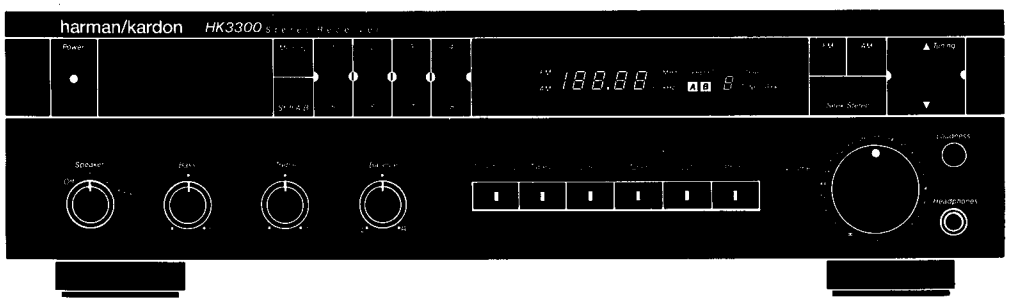
The Harman Kardon Model HK3300

Manual 167B

STEREO RECEIVER

Technical Manual



This manual is to be applied to the North America area model with serial number S189-04202 and above, and International and Australia models.

The following marks found in the parts list of this manual identify the models as follows.

- (BK) : North America area model Black version
- (I) : International model
- (IB) : International model Black version
- (BB) : Australia model Black version

CONTENTS

SPECIFICATIONS 2
LEAKAGE TEST 3
POWER CORD REPLACEMENT 3
CONTROLS & FUNCTIONS 4
DISASSEMBLY PROCEDURES 5
CIRCUIT DESCRIPTION 6
BLOCK DIAGRAM 7
TIMING CHART 7
ALIGNMENT PROCEDURES 8
GENERAL UNIT (EXPLODED VIEW, PARTS LIST) 9
WIRING DIAGRAM 12
P.C. BOARDS 14
ELECTRICAL PARTS LIST 18
IC BLOCK DIAGRAM/IC TERMINAL FUNCTIONS 25
SCHEMATIC DIAGRAM 25

harman/kardon

240 Crossways Park West, Woodbury, N.Y. 11797

1112-3152167B0 P-079105 2000 Printed in Japan

SPECIFICATIONS

● FM SECTION	Nominal	Limit
Tuning Range	87.5	~ 108.0MHz
50dB Quieting Sensitivity		
Mono	15.2dBf	≦ 19dBf
	15.2dBf	≦ 27dBf (I) (IB) (BB)
Stereo	38dBf	≦ 41dBf
	38dBf	≦ 50dBf (I) (IB) (BB)
Usable Sensitivity	11.2dBf	≦ 15dBf
	11.2dBf	≦ 17dBf (I) (IB) (BB)
Image Ratio	45dB	≧ 40dB
IF Rejection	105dB	≧ 80B
Spurious Response Rejection	80dB	
Capture Ratio	1.3dB	≦ 2.0dB
Alternate Channel Selectivity	77dB	≧ 60dB
(+400kHz, −400kHz)		
(+300kHz, −300kHz)		
	77dB	≧ 60dB (I) (IB) (BB)
AM Rejection	60dB	≧ 45dB
Signal to Noise Ratio		
Mono	80.5dB	≧ 76dB
	80.5dB	≧ 70dB (I) (IB) (BB)
Stereo	73dB	≧ 68dB
	73dB	≧ 62dB (I) (IB) (BB)
Total Harmonic Distortion		
(65dBf 1kHz Input)		
Mono	0.09%	≦ 0.3%
Stereo	0.12%	≦ 0.4%
Stereo Separation at 1kHz	55dB	≧ 42dB
	55dB	≧ 35dB (I) (IB) (BB)

● AM SECTION		
Tuning Range	530	~ 1,710kHz
	531	~ 1,602kHz (I) (IB) (BB)
Usable Sensitivity		
External Antenna	27 μV	≦ 33 μV
Loop Antenna	400 μVm	≦ 700 μVm
Selectivity	35dB	≧ 25dB
Signal to Noise Ratio	52dB	≧ 47dB
Image Rejection	39dB	≧ 30dB
IF Rejection	63dB	≧ 50dB

● AUDIO SECTION		
Usable Sensitivity		
Video/CD	135mV	± 25mV
	120mV	± 25mV (I) (IB) (BB)
Phono	2.2mV	± 0.2mV
	2.0mV	± 0.2mV (I) (IB) (BB)
Signal to Noise Ratio		
Video/CD	85dB	≧ 75dB
Phono	83dB	≧ 73dB
Channel Separation at 10kHz		
Video/CD	59dB	≧ 45dB
Phono	71.3dB	≧ 45dB

	Nominal	Limit
IM Distortion Ratio	0.047%	≦ 0.1%
RMS Output Power		
8Ω, 1kHz, THD 0.1%	34.8W	≧ 25W
	34.8W	≧ 20W (I) (IB) (BB)
4Ω, 1kHz, THD 0.3%	34.4W	≧ 25W
High Instantaneous Current Capability (HICC)	18.0A	≧ 15.0A
Damping Factor at 1kHz	86	≧ 60
Tone Control Characteristics		
Bass at 50Hz		
Boost	11dB	± 2dB
Cut	−11dB	± 2dB
Treble at 10kHz		
Boost	11dB	± 2dB
Cut	−11dB	± 2dB
Loudness Control at 50Hz	10dB	± 2dB
DC Output Voltage		
L channel	34mV	± 60mV
R channel	24mV	± 60mV
RIAA Equalization at Tape Out (20Hz/20kHz)	0.1dB±0.5dB/0.2dB±0.5dB	
● DIMENSIONS (W x H x D)	17-3/8" x 5 x 13-3/4" (443 x 126 x 349 mm)	
● WEIGHT	14.1 lbs. (6.4 kg)	
● POWER SUPPLY	AC120V, 60Hz	
	AC230/240V, 50/60Hz (I) (IB) (BB)	
● POWER CONSUMPTION	165W	

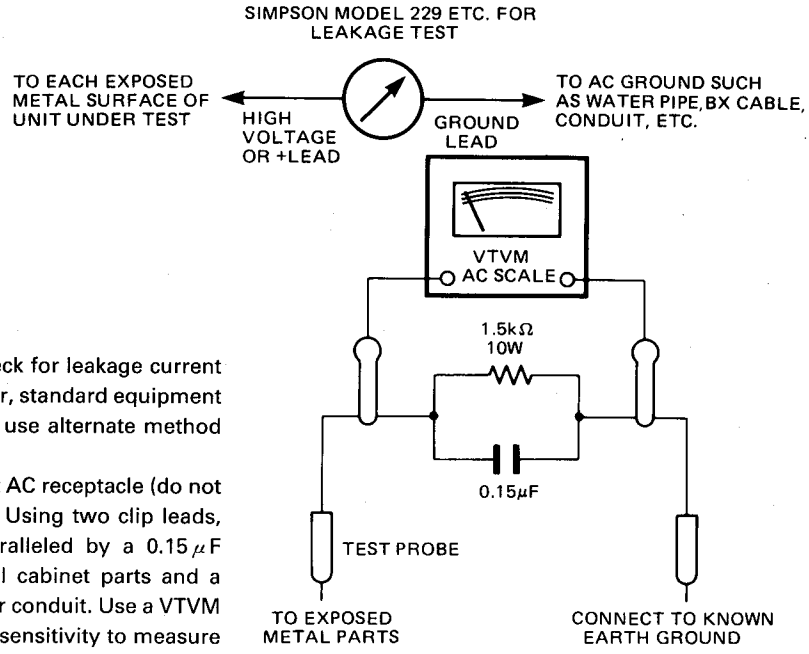
These specifications are Service target specs.

Specifications and components subject to change without notice.
Overall performance will be maintained or improved.

LEAKAGE TEST (FOR SERVICE ENGINEERS IN THE U.S.A.)

Before returning the unit to the user, perform the following safety checks:

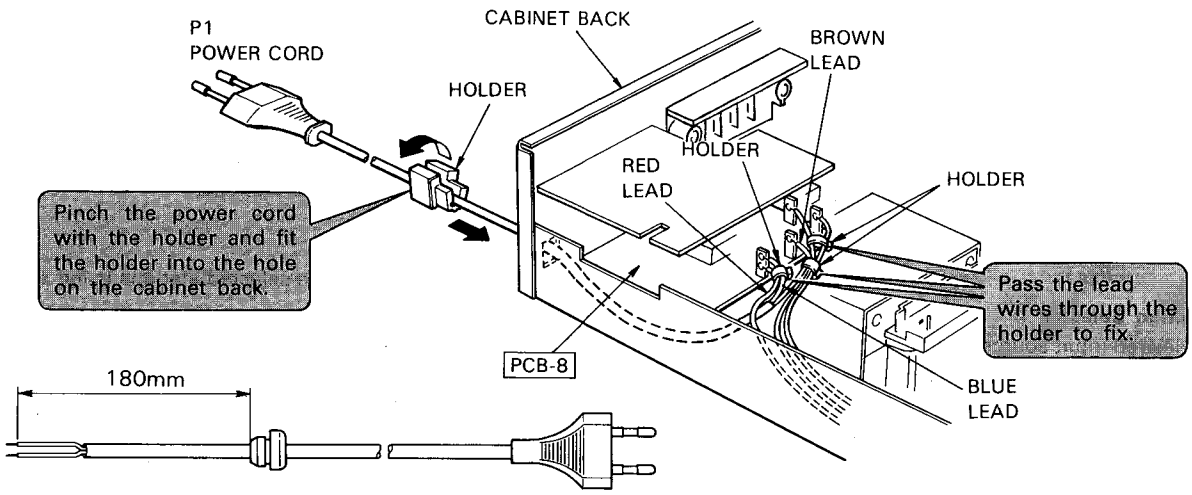
1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the unit.
2. Replace all protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item No. 21641, RCA Model WT540A or use alternate method as follows:


SIMPSON MODEL 229 ETC. FOR LEAKAGE TEST
TO EACH EXPOSED METAL SURFACE OF UNIT UNDER TEST
HIGH VOLTAGE OR +LEAD
GROUND LEAD
TO AC GROUND SUCH AS WATER PIPE, BX CABLE, CONDUIT, ETC.
VTVM
AC SCALE
1.5kΩ 10W
0.15μF
TEST PROBE
TO EXPOSED METAL PARTS
CONNECT TO KNOWN EARTH GROUND

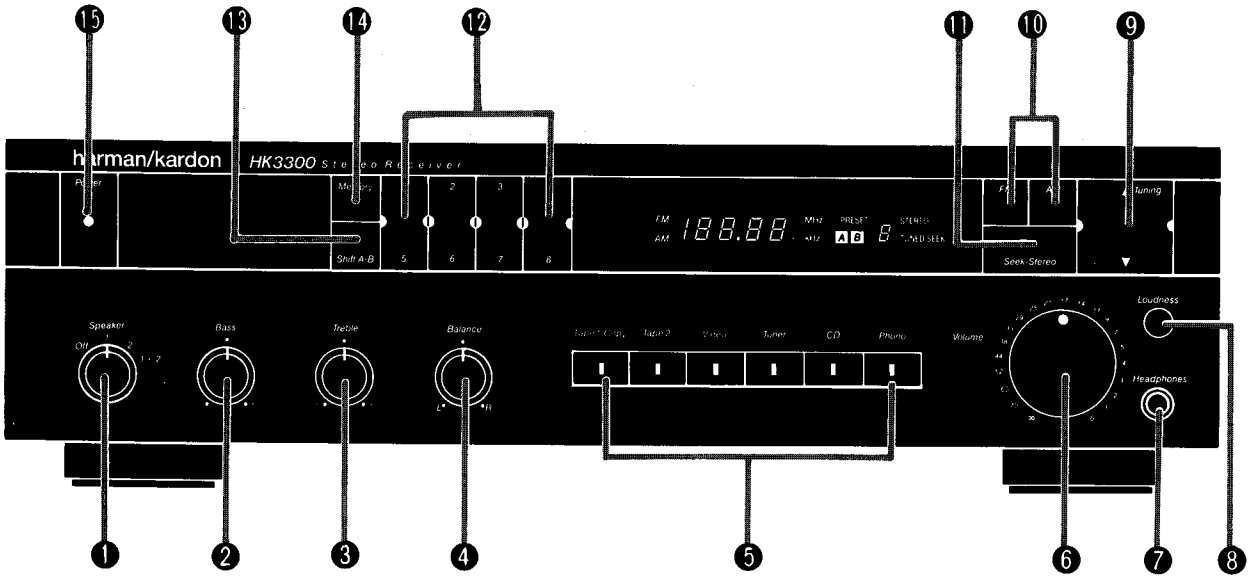
Plug the AC line cord directly into a 120-volt AC receptacle (do not use an Isolation Transformer for this test). Using two clip leads, connect a 1500 ohm, 10-watt resistor paralleled by a 0.15 μF capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (See Diagram.) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal, cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the On and Off positions.) A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.

POWER CORD REPLACEMENT (FOR SERVICE ENGINEERS OTHER THAN NORTH AMERICA)

In order to prevent file or shock hazard when replacing the power cord, follow the procedure below to replace the parts with the standard supply parts.



CONTROLS & FUNCTIONS



❶ Speaker
Turn to select either of two sets of speakers, or both, or neither (headphone output only).

❷ Bass
Turn to increase or decrease the proportion of low frequency sound.

❸ Treble
Turn to increase or decrease the proportion of high frequency sound.

❹ Balance
Turn to adjust relative output level of left and right speakers.

❺ Function Selector
Select desired input source by pressing the corresponding key.

❻ Volume
Turn to raise or lower output volume.

❼ Headphone Jack
Plug in headphones if desired. (With Speaker switch in Off position, output is supplied only to headphones.)

❽ Loudness
Press to improve sound quality when listening to your system at low volume.

❾ Tuning
Press ▲ to tune to stations with higher frequencies; press ▼ for lower frequencies.

❿ FM/AM
Press to select FM or AM reception.

⓫ Seek-Stereo
Press to select Seek tuning in stereo, or manual tuning in mono.

⓬ Preset Buttons
Press to access pre-selected stations.

⓭ Shift A-B
Allows you to access 16 pre-selected stations using the 8 preset buttons.

⓮ Memory
Press to set a new preset station in memory.

⓯ Power
Press to turn the unit on and off.

DISASSEMBLY PROCEDURES (REFER TO PAGES 9 THROUGH 13)

[1] CABINET TOP (127) REMOVAL

Remove 6 screws (A) and then remove the Cabinet Top (127).

[2] FRONT PANEL ASSEMBLY (AA) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step [1].
2. Pull out the Volume Knob (139).
3. Disconnect the (CW100) from (CN100) on the Trans Terminal P.C. Board (PCB-13).
4. Disconnect the (JL101, JL804) from (CN101A, CN804B) on the Tuner P.C. Board (PCB-1).
5. Remove 3 screws (B) and 3 screws (C) and then remove the Front Panel Assembly (AA).

[3] FRONT P.C. BOARD (PCB-14) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step [2].
2. Remove 11 screws (D) and then remove the Front P.C. Board (PCB-14).

[4] TONE CONTROL P.C. BOARD (PCB-6) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step [2].
2. Pull out the Bass, Treble and Balance Knobs (140).
3. Remove the 3 nuts (E) and then remove the Tone Control P.C. Board (PCB-6).
4. Disconnect the (CW401) from (CN401) on the Tone Control P.C. Board (PCB-6).
5. If necessary, unsolder the lead wires.

[5] VOLUME P.C. BOARD (PCB-7) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step [2].
2. Remove the 1 nut (F) and then remove the Volume P.C. Board (PCB-7).
3. If necessary, unsolder the lead wires.

[6] HEADPHONE P.C. BOARD (PCB-10) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step [2].
2. Pull out the Loudness Button (151).
3. Remove 2 screws (G) and then remove the Headphone P.C. Board (PCB-10).
4. If necessary, unsolder the lead wires.

[7] SPEAKER SWITCH P.C. BOARD (PCB-11) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step [2].
2. Pull out the Speaker Knob (140).
3. Remove 1 nut (H) and then remove the Speaker Switch P.C. Board (PCB-11).
4. If necessary, unsolder the lead wires.

[8] POWER SWITCH P.C. BOARD (PCB-15) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step [2].
2. Remove 2 screws (I) and then remove the Power Switch P.C. Board (PCB-15).
3. Open the lid of connector (CN11) on the Power Switch P.C. Board (PCB-15) and then disconnect the lead wire.

[9] TUNER P.C. BOARD (PCB-1) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step [2].
2. Disconnect the (CW15, CW102) from (CN15, CN102) on the Tuner P.C. Board (PCB-1).
3. Open the lid of connectors (CN12, CN501) on the Tuner P.C. Board (PCB-1) and then disconnect the lead wire.
4. Remove 8 screws (J) and then remove the Front Panel Assembly and Chassis.
5. Remove 10 screws (K) and then remove the Tuner P.C. Board (PCB-1) with Equalizer P.C. Board (PCB-2) and Monitor P.C. Board (PCB-3).
6. If necessary, unsolder the lead wires.
7. Pull out the Equalizer P.C. Board (PCB-2).
8. Pull out the Monitor P.C. Board (PCB-3).

[10] SUB WOOFER P.C. BOARD (PCB-4) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step [1].
2. Remove 2 screws (L) and then remove the Sub Woofer P.C. Board (PCB-4).
3. Open the lid of connector (CN104) on the Sub Woofer P.C. Board (PCB-4).
4. If necessary, unsolder the lead wires.

[11] SPEAKER TERMINAL P.C. BOARD (PCB-12) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step [1].
2. Remove 2 screws (M) and then remove the Speaker Terminal P.C. Board (PCB-12).
3. If necessary, unsolder the lead wires.

[12] MAIN P.C. BOARD (PCB-5) REMOVAL

1. Remove the Speaker Terminal P.C. Board (PCB-12), referring to the previous step [11].
2. Remove 5 screws (N) and then remove the Main P.C. Board (PCB-5) with Metal Fittings (167, 168).
3. If necessary, unsolder the lead wires.

[13] SECONDRY P.C. BOARD (PCB-9) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step [1].
2. Remove 6 screws (O) and then remove the Power Transformer (T1) with Secondry P.C. Board (PCB-9) and Trans Terminal P.C. Board (PCB-13).
3. If necessary, unsolder the lead wires.

[14] PRIMARY P.C. BOARD (PCB-8) REMOVAL

1. Remove the Secondry P.C. Board (PCB-9), referring to the previous step [13].
2. Remove 2 screws (P) and then remove the Primary P.C. Board (PCB-8).
3. If necessary, unsolder the lead wires.

CIRCUIT DESCRIPTION

■FM TUNER SECTION

The FM signal which has entered through the antenna is high-frequency amplified in the front end. Then it is mixed with the output of the local oscillators and converted into the 10.7MHz intermediate-frequency.

The 10.7MHz signal is amplified in the intermediate frequency amplifying section which consists of CF201, Q201, CF202, Q202 and CF203 and fed to pin 1 of IC201. In IC201, the signal is sent through the IF amplifier and after being detected in the quadrature, it is sent through the post amplifier to pin 12 and then input to pin 2 of IC301. In IC301, the pilot signal is detected out of the signal which has been fed and 38kHz signal is produced. Then by this signal, stereo signal is demodulated, output from pin 4 for the left channel and from pin 7 for the right channel and transmitted to the input selector section.

■AM TUNER SECTION

The AM signal which has entered through the antenna passes through the tuning circuit consisting of CB251 and is inputted to pin 21 of IC201. In IC201, it undergoes radio-frequency amplification and local oscillation and is output from pin 20, and passed through the transformer (T251) and ceramic filter (CF252) and enters pin 18 of IC201. It is then passed through the IF amplification and detection and is output from pin 15. This signal is fed to IC301.

■AUDIO AMPLIFIER SECTION

The signal which has entered from each input terminal is selected by the input selector, passes through the balance circuit, volume and loudness circuit and is fed into the pre-amplifier.

Then it is fed into the power amplifier through the tone control circuit, power is amplified and transmitted to the speaker terminal.

The power amplifier has an over-output protective circuit. If current exceeding the specification flows to Q419, Q421 (L ch), Q420, Q422 (R ch), it is detected at Q27 (L ch) and Q28 (R ch) and the protective circuit consisting of Q22 and Q24 draws in Q23 and Q29, and thus the input signal is cut to protect the circuit.

■MUTING CIRCUIT

If FM or AM is received out of tuning or in a very weak field intensity, pin 31 of IC701 becomes high level. This is fed to the base of Q707, whose collector then becomes low level and the collector of Q708 high level. As a result, Q301 (L ch) and Q302 (R ch) are conducted to mute the output.

■SYNTHESIZER SECTION

●FM

The local oscillation output at the front end is fed to pin 21 of the prescaler IC702 and after being frequency divided into 30 or 32, control output signal if fed from IC701, compared with the divided local oscillation output and output to pin 16. This voltage is level converted at Q701 and Q702, and fed to the front end.

●AM

The local oscillation output is fed from pin 24 of IC201 to pin 19 of IC702. In IC702, control output signal is fed from IC701, compared with the local oscillation output and output to pin 16. This voltage is level converted at Q701 and Q702, and fed to the AM local oscillation section.

■INDICATOR SECTION

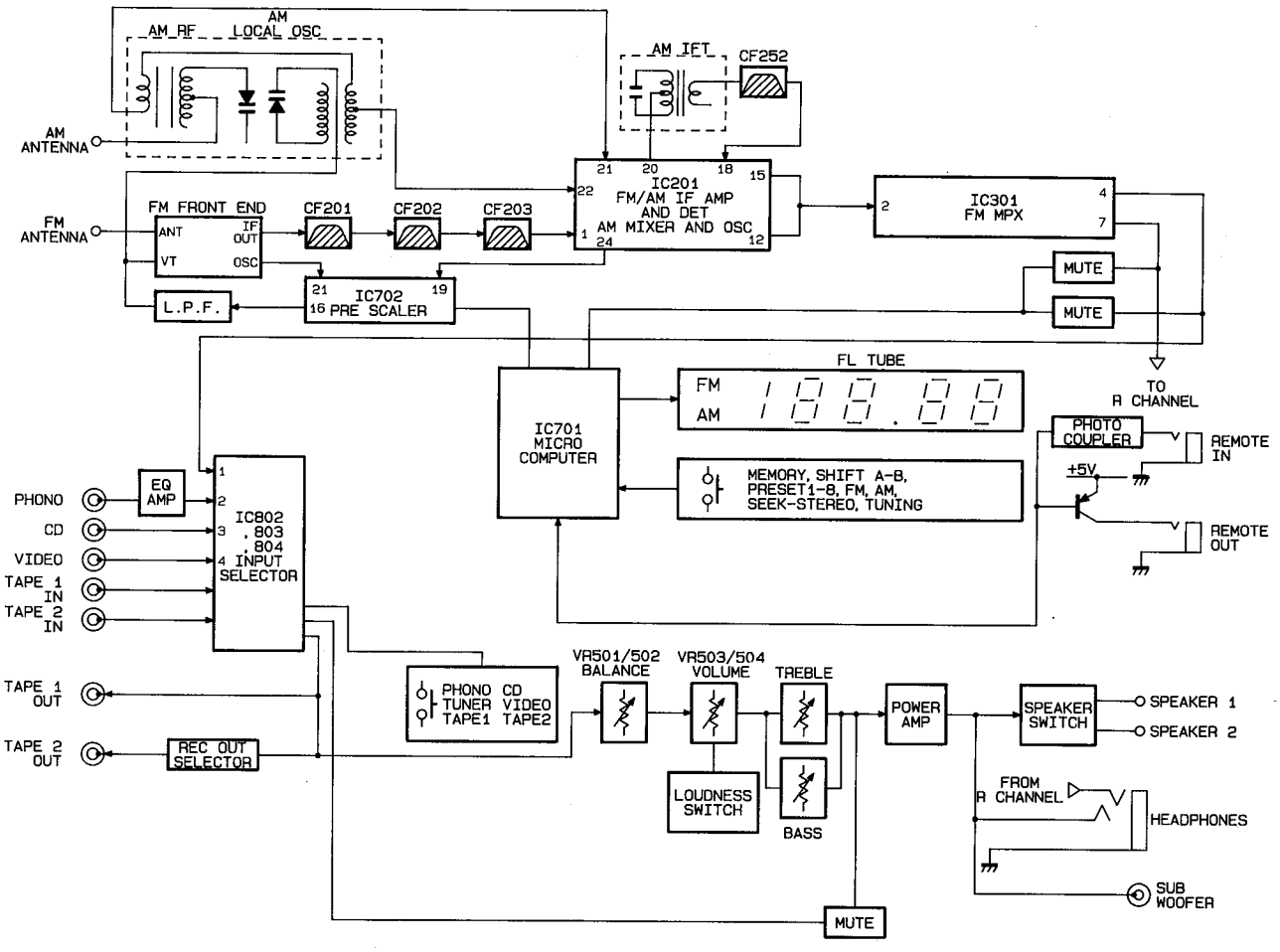
●Frequency display

The indicator tube is turned ON by the output decoded in IC701.

●Tuning

When broadcast is received, Q711 turns ON by the control signal in IC301 and "Tuned" of the indicator tube is turned ON. When FM or stereo broadcast is received, pin 9 of IC301 becomes low level, Q712 turns ON and "Stereo" of the indicator tube is turned ON.

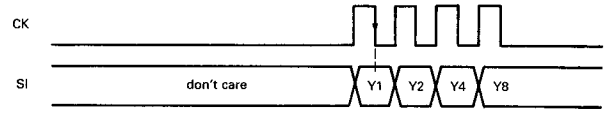
BLOCK DIAGRAM



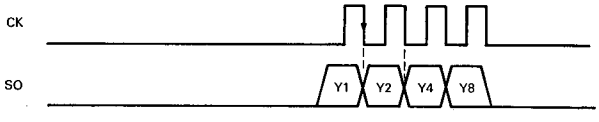
TIMING CHART

Frequency display timing chart of IC701 (TC9301AN-020)

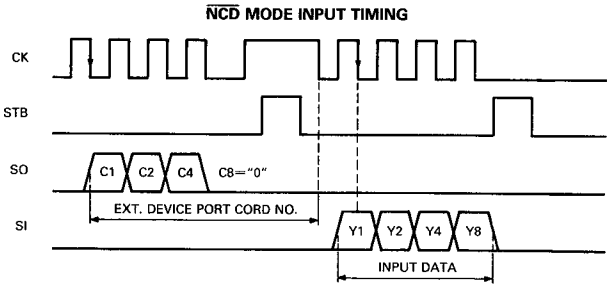
NCD MODE INPUT TIMING



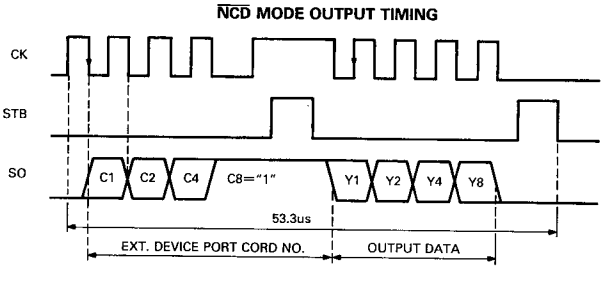
NCD MODE OUTPUT TIMING



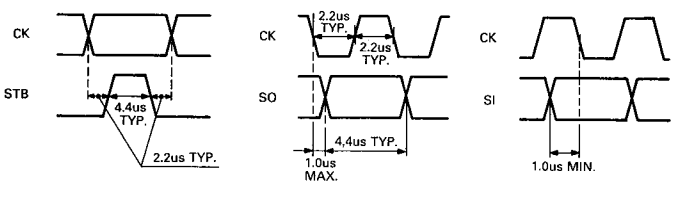
$\overline{\text{NCD}}$ MODE INPUT TIMING



$\overline{\text{NCD}}$ MODE OUTPUT TIMING



SERIAL TIMING PULSE WIDTH



ALIGNMENT PROCEDURES (REFER TO PAGES 14 THROUGH 17 AND 26 THROUGH 30)

Conditions:
- Set the Volume control to minimum.
- Set the Speaker switches to 1 position.
- Set the Speaker Operating Mode switch to "8Ω" position.
- Make the adjustment at a room temperature of 77°F (25°C).
- After the Power switch is pushed on, wait for 30 minutes before measuring to be sure of the most stable operation.

■ IDLING CURRENT ADJUSTMENT

Step	Terminal to be Connected	Adjustment	For
1	Connect the Digital Volt Meter to TP401 and TP403.	VR401 (L ch)	40mV ±2mV
2	Connect the Digital Volt Meter to TP402 and TP404.	VR402 (R ch)	40mV ±2mV

■ AM ADJUSTMENT

Conditions:
- Set the AM mode by pressing the "AM" button.
- Set the Seek switch to off (put out seek indicator) position.
- Standard modulation of the AM signal Generator is 400Hz at 30%.

Step	Alignment	Terminal to be Connected	Measurement Frequency	Station Display	Adjustment	For
1	IF	• Connect the AM Test Loop Antenna cable into the output jack of AM Signal Generator (80 dBμV signal). Place AM Test Loop Antenna close enough to couple signal into the AM Loop Antenna. • Connect the VTVM and oscilloscope to the OUTPUT jacks.	1400kHz ※1404kHz	1400kHz ※1404kHz	T251	Maximum output level and symmetrical curve on scope.
2	Tracking		600kHz ※603kHz	600kHz ※603kHz	CB251	Maximum output.

※International and Australia models

■ FM ADJUSTMENT

Conditions:
- Set the FM mode by pressing the "FM" button.
- Set the Seek switch to off (put out seek indicator) position.

FM Signal Generator	1kHz, 75kHz modulation ※1kHz, 40kHz modulation
Stereo Modulator	L+R=45.5%, L−R=45.5%, 19kHz=9% ※L+R=22.5%, L−R=22.5%, 19kHz=8%

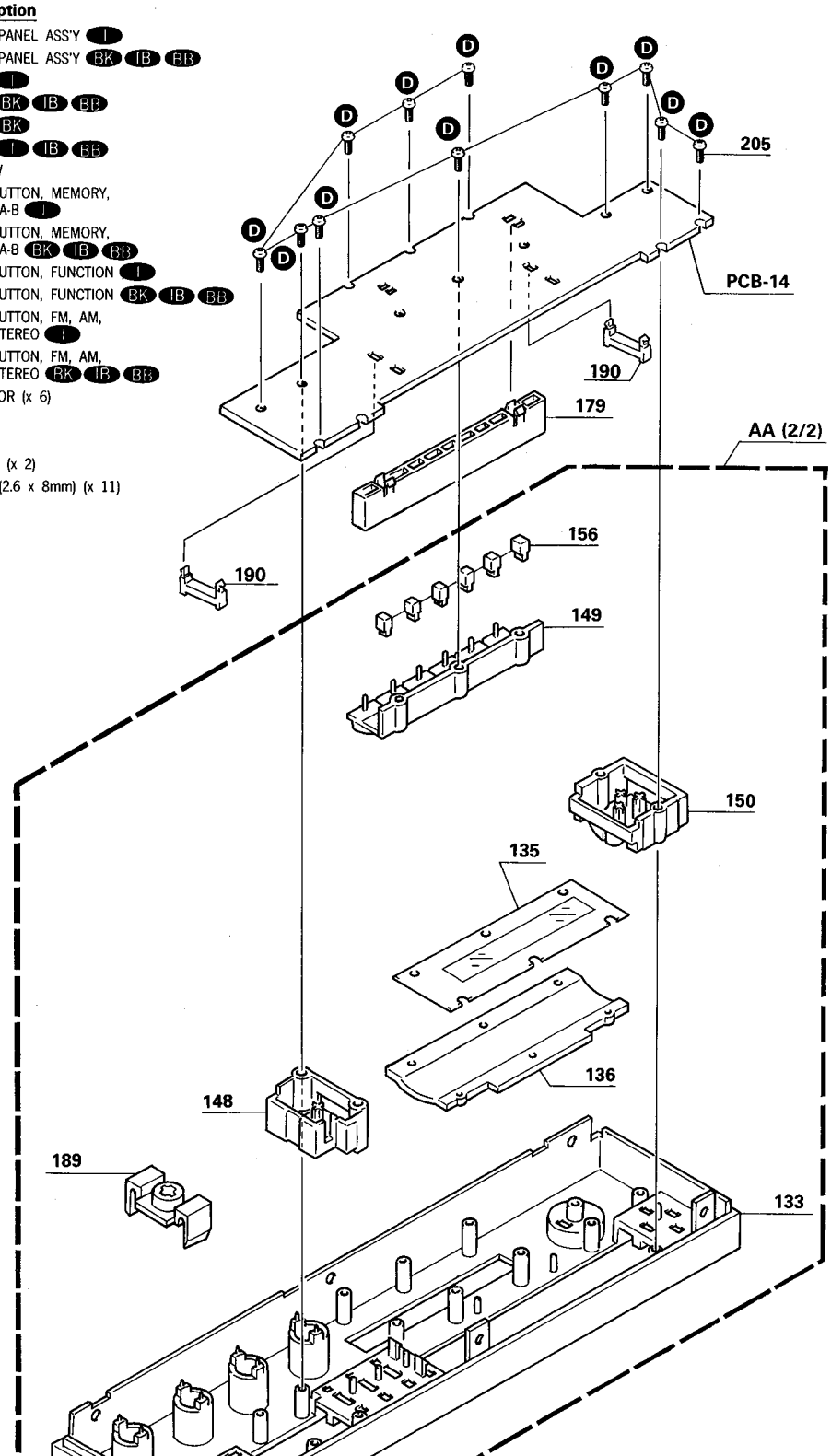
※International and Australia models

Step	Alignment	Terminal to be Connected	Measurement Frequency	Station Display	Adjustment	For
1	Discriminator	• Connect the FM Signal Generator to FM 300Ω BAL Antenna terminals through the 300Ω balanced dummy. [1mV(65dBf) input signal] • Connect the Oscilloscope and Distortion meter to the Tape 1 OUTPUT jacks. • Set the Seek switch to on (seek indicator lights) position.	97.9MHz	97.9MHz	T201(A)	Adjust so that the TUNED indicator lights in the same range on both plus (+) and minus (−) sides of 97.9 MHz.
2			97.9MHz	97.9MHz	T201(B)	Minimum distortion.
3			Repeat steps 1 and 2 for optimum sensitivity.			
4	Muting level		97.9MHz	97.9MHz	VR201	Adjust VR201 so that the waveform is disappear at 30 dBf input.
5	Separation	• Connect the Stereo Modulator to FM Signal Generator. Connect FM Signal Generator to FM 300Ω BAL Antenna terminal through the 300Ω balanced dummy. (65 dBf input signal) • Connect the VTVM and Oscilloscope to the Tape 1 OUTPUT jacks.	97.9MHz	97.9MHz	VR301	Adjust so that the left channel output becomes minimum when only the right channel of the Stereo Modulator is modulated.
					VR301	Adjust so that the right channel output becomes minimum when only the left channel of the Stereo Modulator is modulated.

GENERAL UNIT PARTS LIST

Ref. No.	Part No.	Description
AA	A442-HK3300A	FRONT PANEL ASS'Y (I)
AA	A442-HK3300B	FRONT PANEL ASS'Y (BK) (IB) (BB)
133	1442-25601	PANEL (I)
133	1442-25602	PANEL (BK) (IB) (BB)
135	1511-19804	PLATE (BK)
135	1511-19808	PLATE (I) (IB) (BB)
136	1532-17504	WINDOW
148	1662-59003	PUSH BUTTON, MEMORY, SHIFT A-B (I)
148	1662-59004	PUSH BUTTON, MEMORY, SHIFT A-B (BK) (IB) (BB)
149	1662-62301	PUSH BUTTON, FUNCTION (I)
149	1662-62302	PUSH BUTTON, FUNCTION (BK) (IB) (BB)
150	1662-62401	PUSH BUTTON, FM, AM, SEEK-STEREO (I)
150	1662-62402	PUSH BUTTON, FM, AM, SEEK-STEREO (BK) (IB) (BB)
156	1732-08101	INDICATOR (x 6)
179	2240-7376	HOLDER
189	2240-7385	HOLDER
190	2240-7134	HOLDER (x 2)
205	2347-R0126082	SCREW (2.6 x 8mm) (x 11)

GENERAL UNIT
EXPLODED VIEW (FRONT PANEL ASS'Y)



GENERAL UNIT PARTS LIST

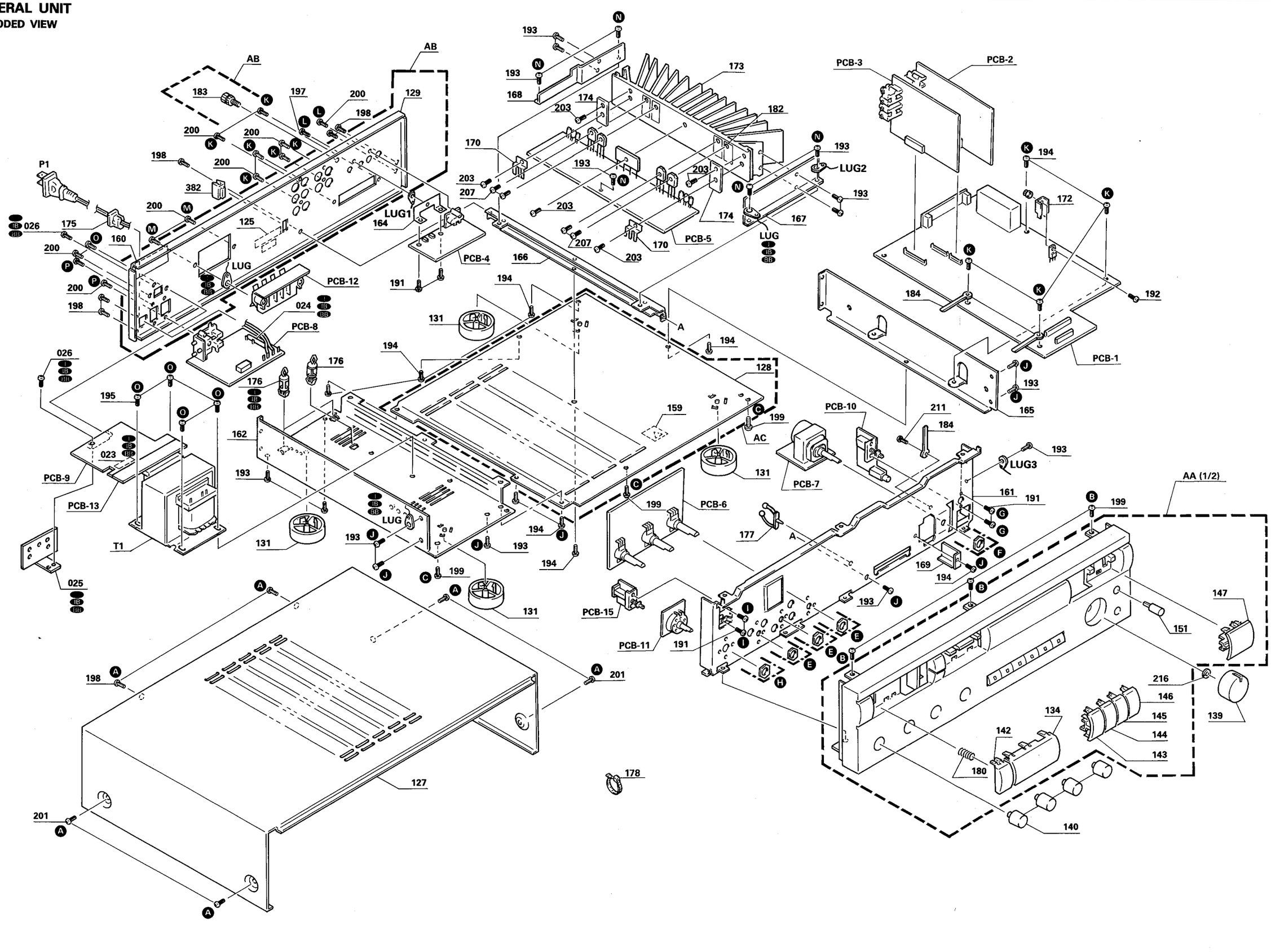
Ref. No.	Part No.	Description
AB	A424-HK3300A	CABI BACK REAR ASS'Y (BK)
AB	A424-HK3300E	CABI BACK REAR ASS'Y (I) (IB) (BB)
AC	A424-HK3300B	CABI BACK BOTTOM ASS'Y
023	1756-01409	LABEL (I) (IB) (BB)
024	1756-01412	LABEL (I) (IB) (BB)
025	2219-8342	METAL FITTG (I) (IB) (BB)
026	2347-R0130064	SCREW (3 x 6mm) (I) (IB) (BB)
125	1756-CSA	LABEL (BK)
127	1414-16401	CABINET, TOP (BK)
127	1414-16403	CABINET, TOP (I) (IB) (BB)
128	1424-33301	CABI BACK, BOTTOM
129	1424-33101	CABI BACK, REAR (BK)
129	1424-33103	CABI BACK, REAR (I) (IB) (BB)
131	1319-03301	LEG (x 4)
134	1442-24702	PANEL
139	1630-04302	ROTARY KNOB, VOLUME (I)
139	1630-04301	ROTARY KNOB, VOLUME (BK) (IB) (BB)
140	1632-20701	ROTARY KNOB, SPEAKER, BASS, TREBLE, BALANCE (x 4) (I)
140	1632-20702	ROTARY KNOB, SPEAKER, BASS, TREBLE, BALANCE (x 4) (BK) (IB) (BB)
142	1662-52003	PUSH BUTTON, POWER (I)
142	1662-52001	PUSH BUTTON, POWER (BK) (IB) (BB)
143	1662-58601	PUSH BUTTON, PRESET 1/5 (I)
143	1662-58605	PUSH BUTTON, PRESET 1/5 (BK) (IB) (BB)
144	1662-58602	PUSH BUTTON, PRESET 2/6 (I)
144	1662-58606	PUSH BUTTON, PRESET 2/6 (BK) (IB) (BB)
145	1662-58603	PUSH BUTTON, PRESET 3/7 (I)
145	1662-58607	PUSH BUTTON, PRESET 3/7 (BK) (IB) (BB)
146	1662-58604	PUSH BUTTON, PRESET 4/8 (I)
146	1662-58608	PUSH BUTTON, PRESET 4/8 (BK) (IB) (BB)
147	1662-58901	PUSH BUTTON, TUNING (I)
147	1662-58902	PUSH BUTTON, TUNING (BK) (IB) (BB)
151	1662-62901	PUSH BUTTON, LOUDNESS (I)
151	1662-62902	PUSH BUTTON, LOUDNESS (BK) (IB) (BB)
159	1751-01018	LABEL (BK)
160	1756-05910	LABEL (BK)
161	2211-7313	CHASSIS
162	2211-7314	CHASSIS
164	2219-8298	METAL FITTG
165	2219-8300	METAL FITTG
166	2219-8301	METAL FITTG
167	2219-8302	METAL FITTG
168	2219-8303	METAL FITTG
169	2219-8304	METAL FITTG
170	2219-8305	METAL FITTG (x 2)
172	2222-7230	HEAT SINK
173	2222-7282	HEAT SINK
174	2222-7285	HEAT SINK (x 2)
175	2240-364	HOLDER
176	2240-7369	HOLDER
177	2240-7049	HOLDER
178	2240-R0101	HOLDER (x 18)
180	2651-2101736	SPRING
182	2224-7134	INSULATOR (x 4)
183	4214-168	TERMINAL
184	2218-R0130	BRACKET, FIX (x 3)
191	2327-R0130062	SCREW (3 x 6mm) (x 6)
192	2327-R0130082	SCREW (3 x 8mm)
193	2347-R0130062	SCREW (3 x 6mm) (x 17)
194	2347-R0130062	SCREW (3 x 6mm) (x 12)
195	2347-R0140082	SCREW (4 x 8mm) (x 4)
197	2327-R0130084	SCREW (3 x 8mm)
198	2347-R0130064	SCREW (3 x 6mm) (x 7)
199	2347-R0130084	SCREW (3 x 8mm) (x 6)
200	2347-R0130104	SCREW (3 x 10mm) (x 13)
201	2347-R0140064	SCREW (4 x 6mm) (x 4)
203	2347-R0130082	SCREW (3 x 8mm) (x 5)
207	2557-301029	SCREW (3 x 10mm) (x 4)
211	2347-R0130062	SCREW (3 x 6mm)
216	2651-110519	SPRING
382	2240-7208	HOLDER
⚠P1	4161-71151	CORD W/PLUG (BK)
⚠P1	4161-7256	CORD W/PLUG (I) (IB)
⚠P1	4161-04100	CORD W/PLUG (BB)
⚠T1	5584-S8901	XFORMER, POWER (BK)
⚠T1	5584-S8902	XFORMER, POWER (I) (IB) (BB)

NOTE

⚠ SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

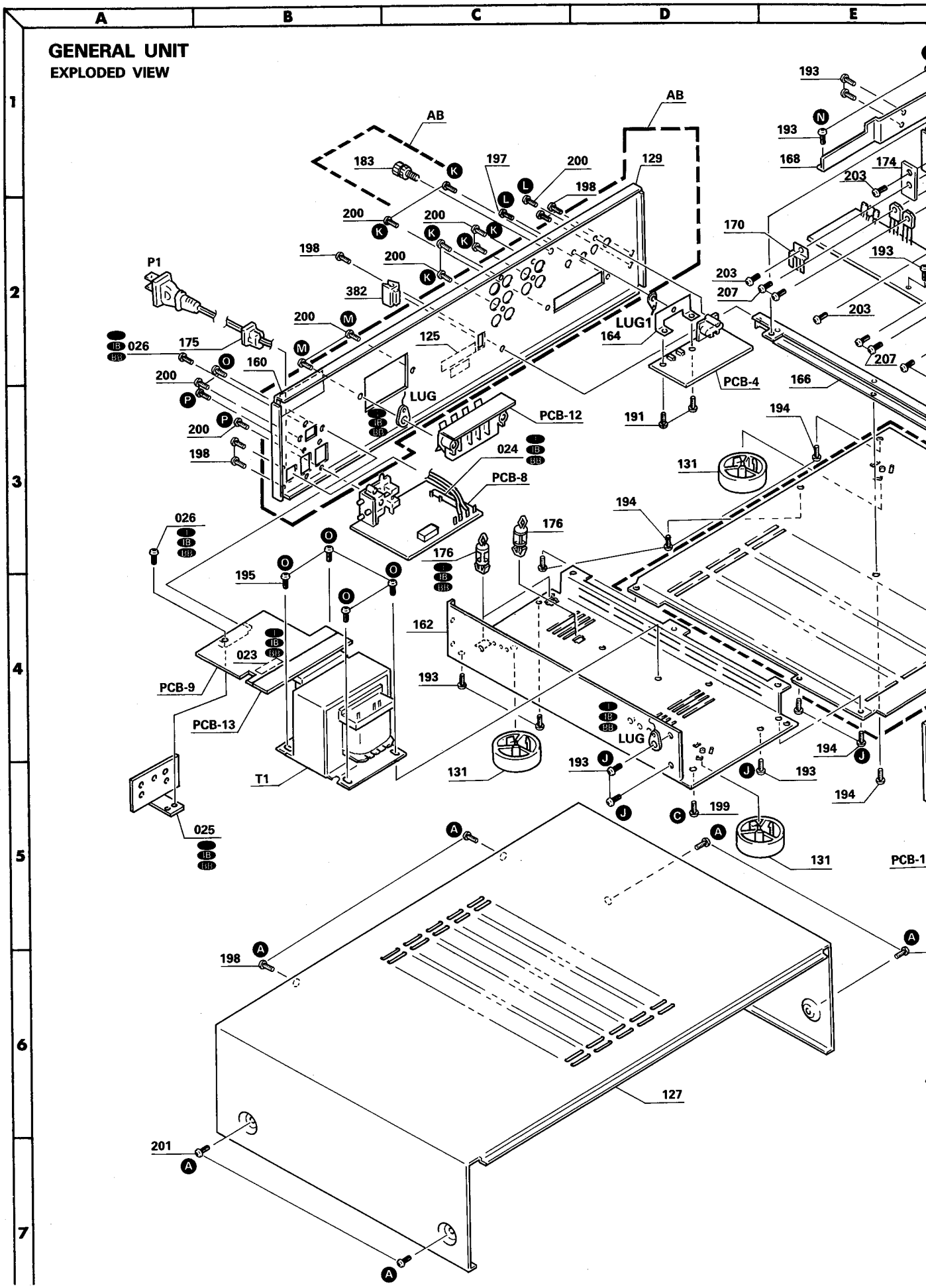
GENERAL UNIT

EXPLODED VIEW

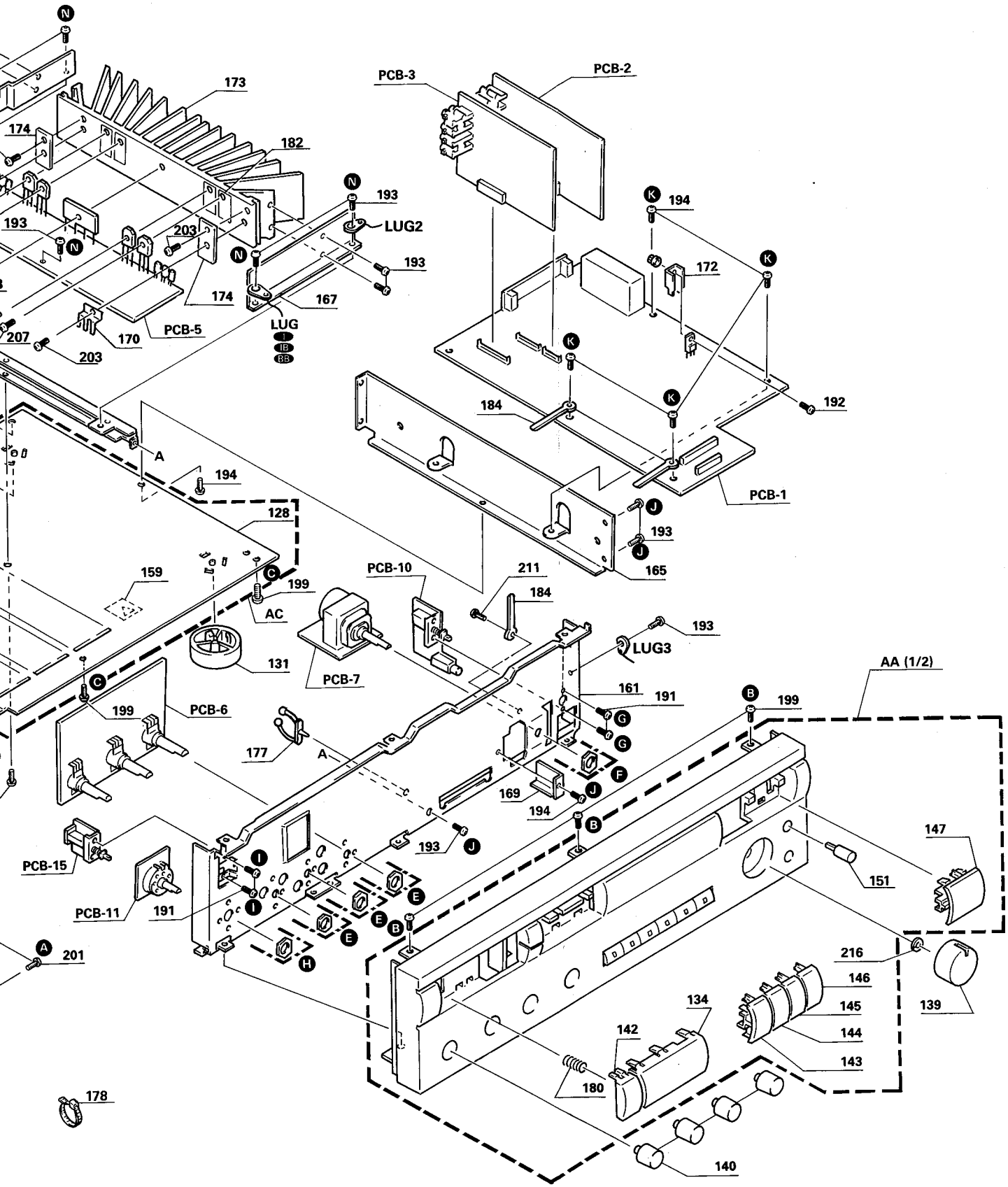


GENERAL UNIT

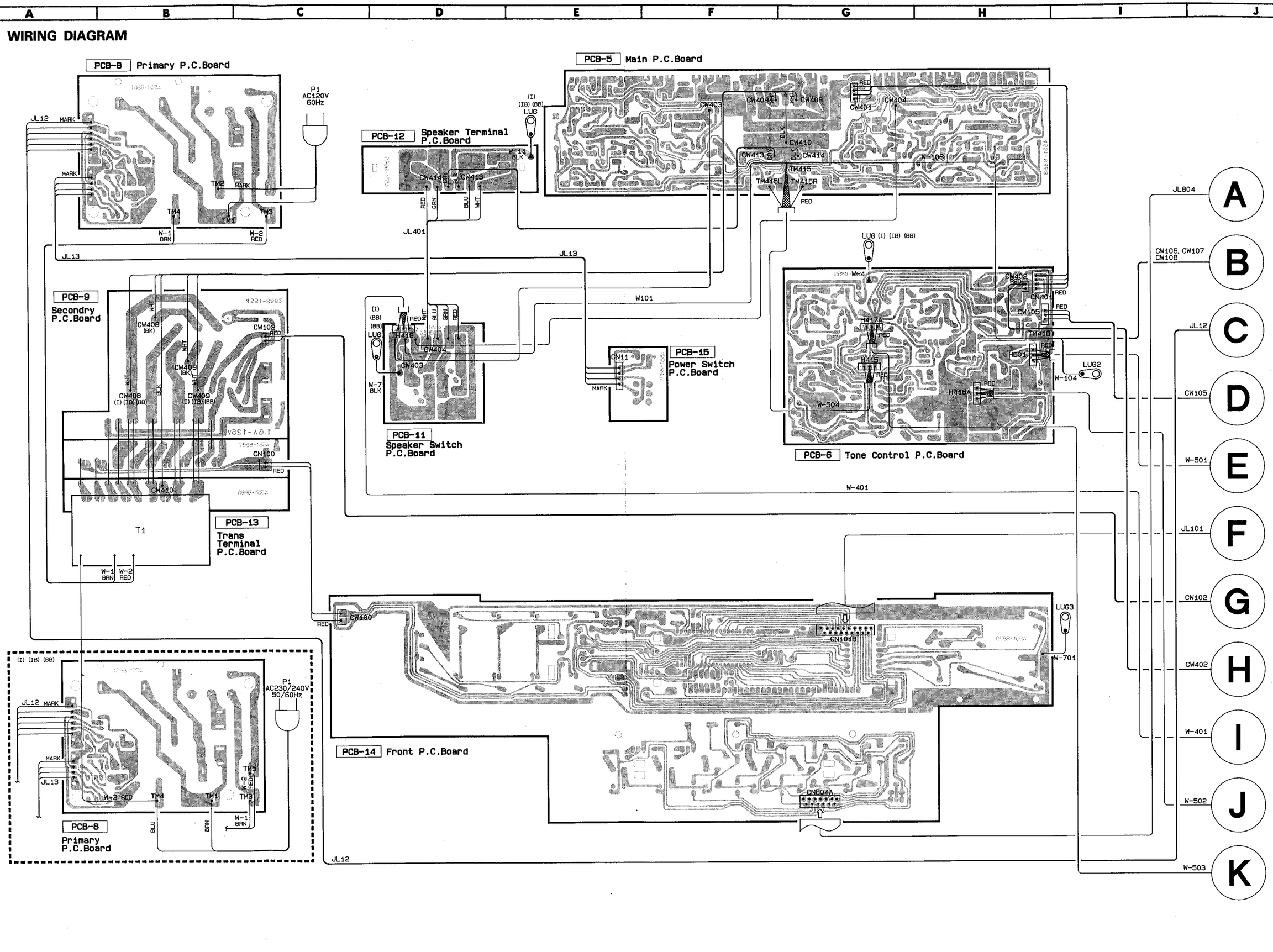
EXPLODED VIEW



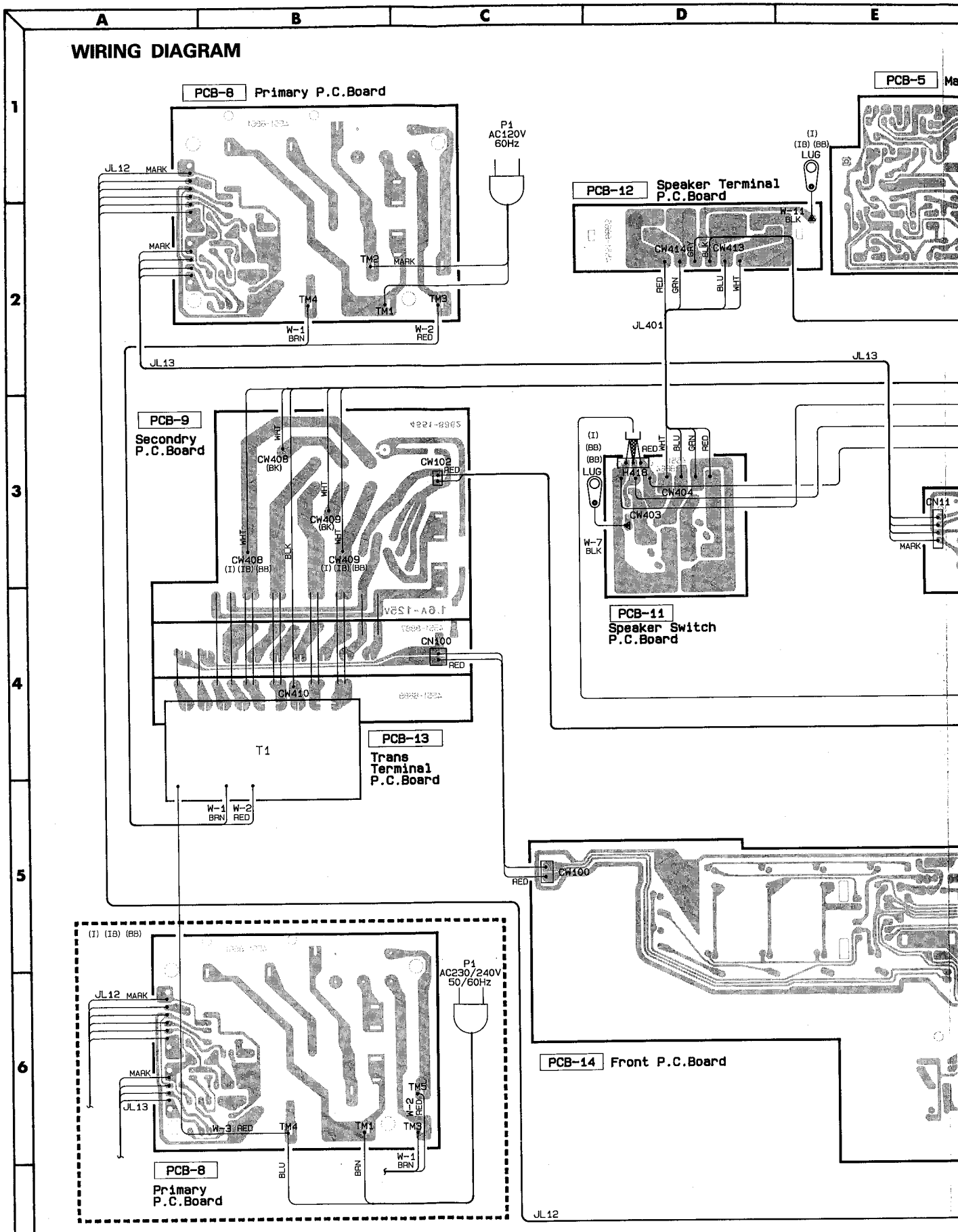
	F	G	H	I	J


N
173
174
182
193
203
LUG2
167
LUG
IB
BB
207
170
PCB-5
PCB-3
PCB-2
K
194
172
184
192
PCB-1
J
165
A
128
C
159
199
AC
131
PCB-10
211
PCB-7
LUG3
161
191
G
F
169
PCB-6
177
PCB-15
PCB-11
I
E
H
AA (1/2)
B
147
151
216
146
145
144
143
139
134
142
180
140
178
201

WIRING DIAGRAM

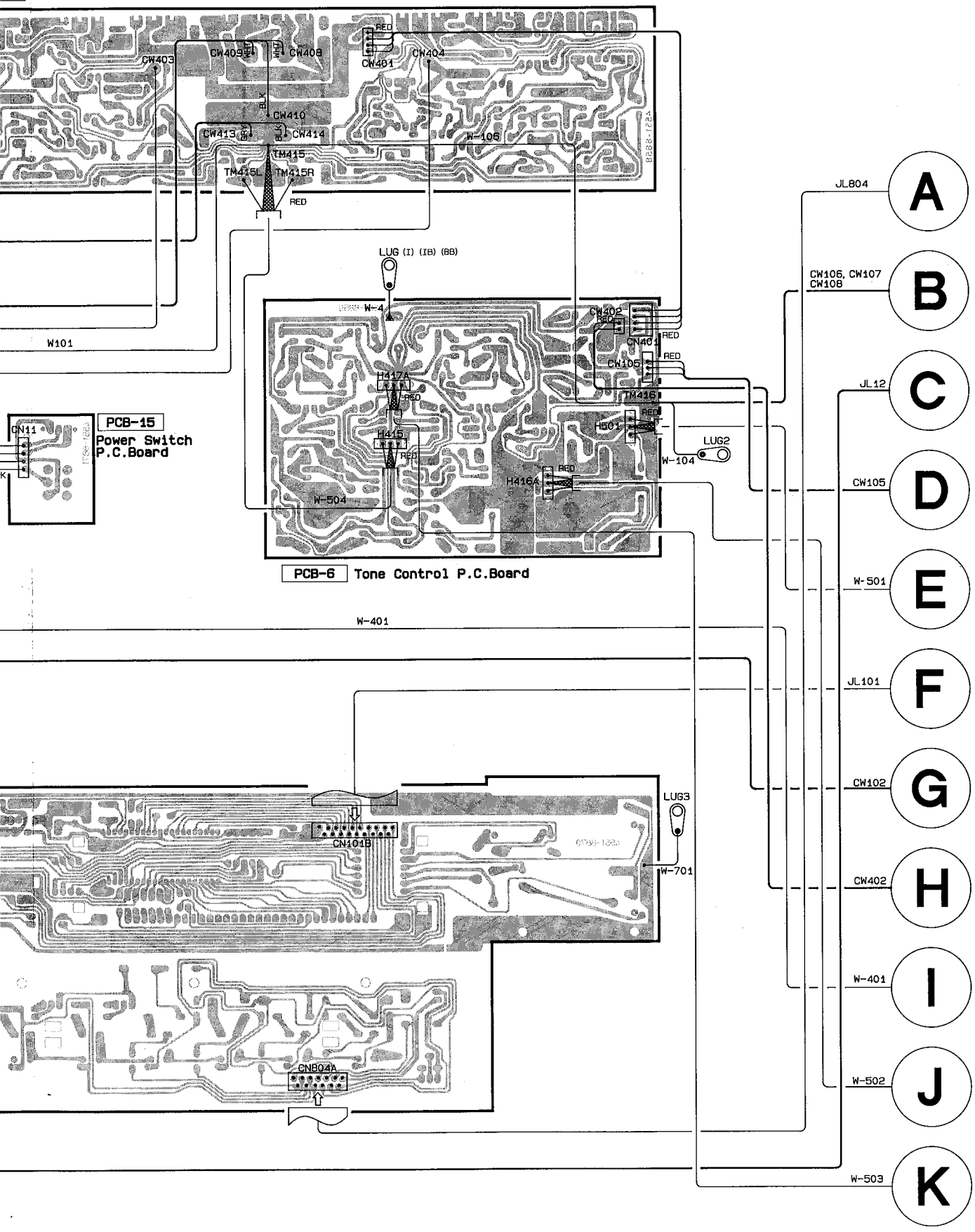


WIRING DIAGRAM

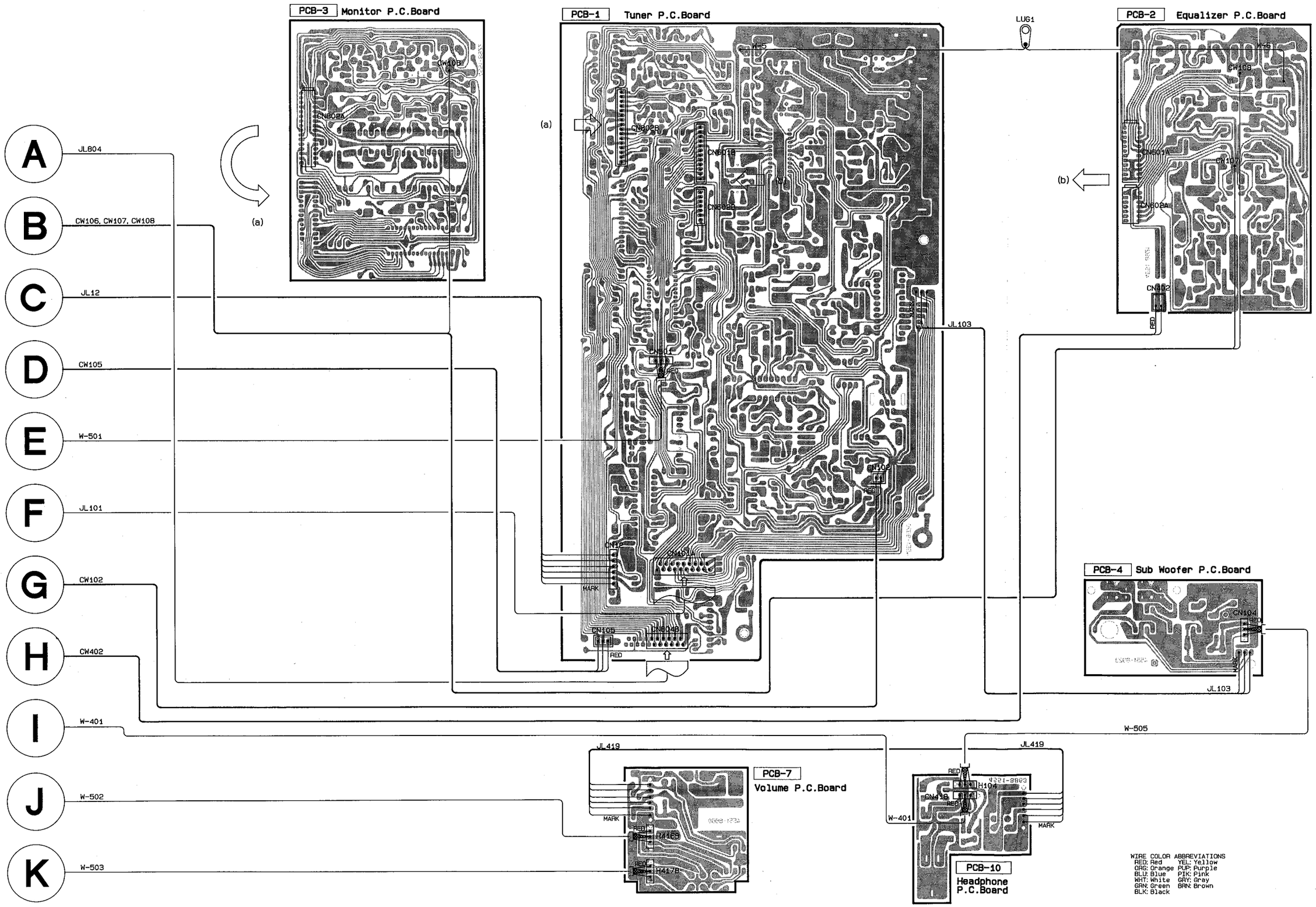


F G H I J

-5 Main P.C.Board



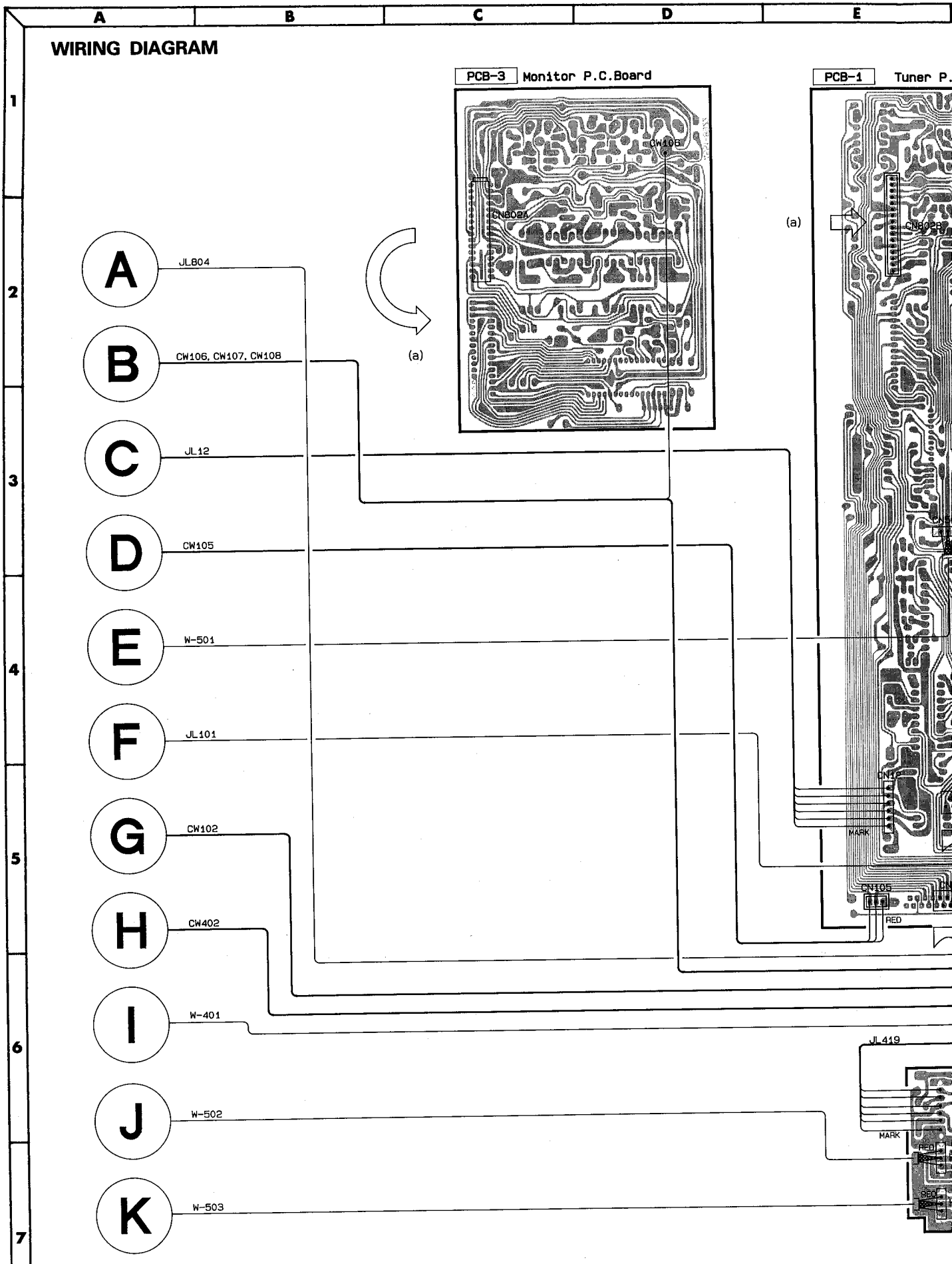
WIRING DIAGRAM



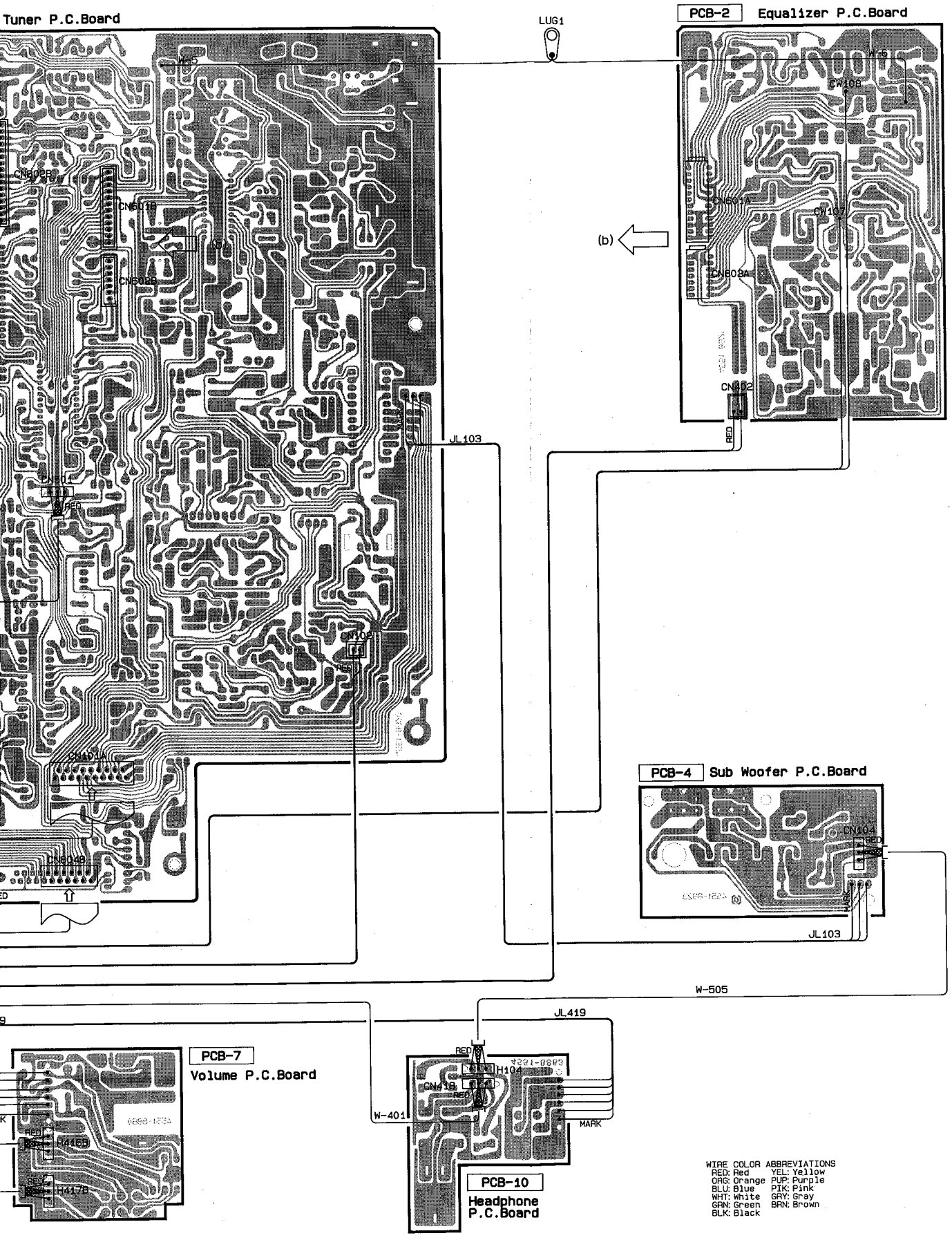
WIRE COLOR ABBREVIATIONS

RED: Red	YEL: Yellow
ORG: Orange	PUP: Purple
BLU: Blue	PIK: Pink
WHT: White	GRY: Gray
GRN: Green	BRN: Brown
BLK: Black	

WIRING DIAGRAM



F G H I J

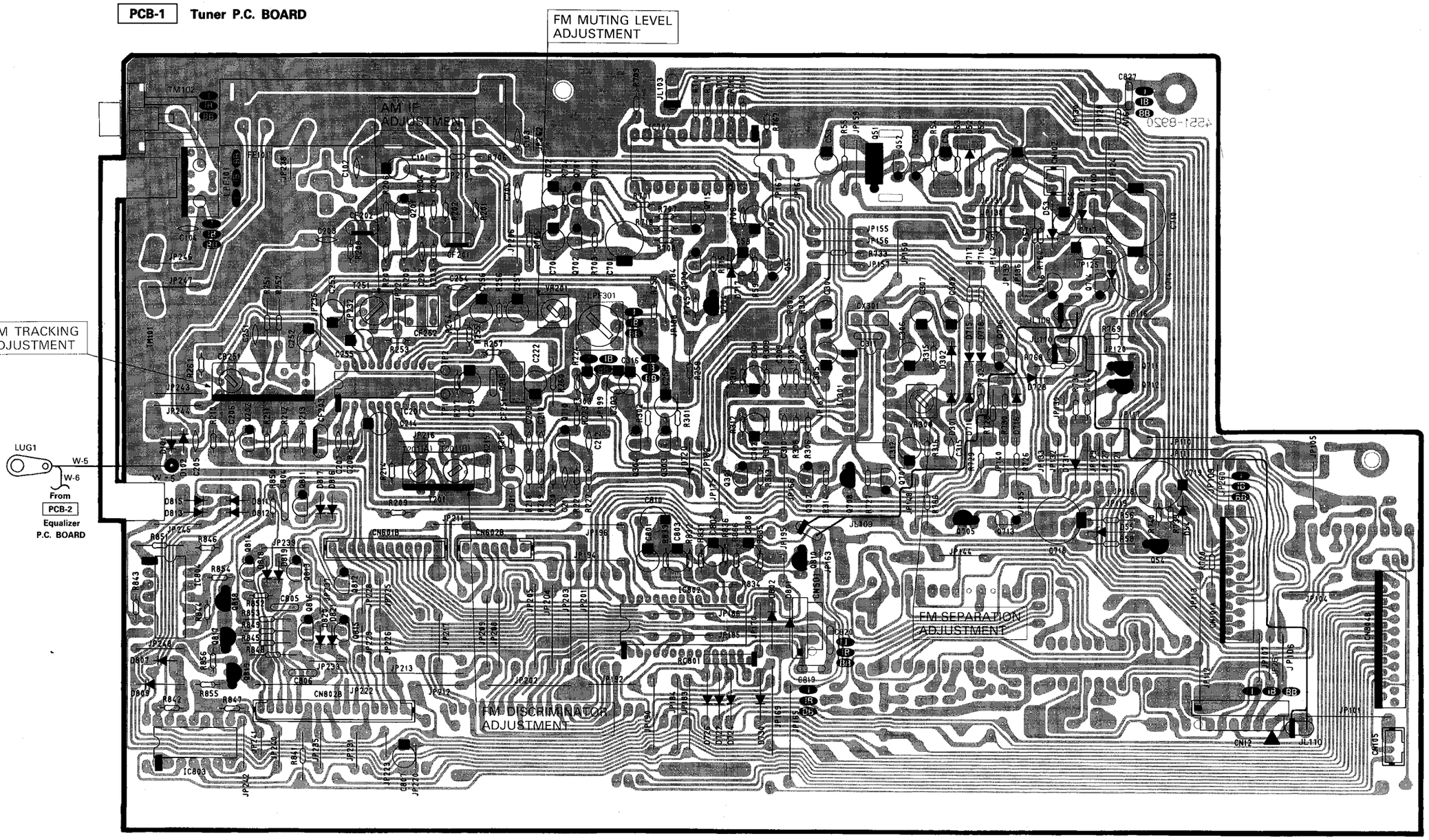


WIRE COLOR ABBREVIATIONS

RED: Red	YEL: Yellow
ORG: Orange	PUP: Purple
BLU: Blue	PIK: Pink
WHT: White	GRY: Gray
GRN: Green	BRN: Brown
BLK: Black	

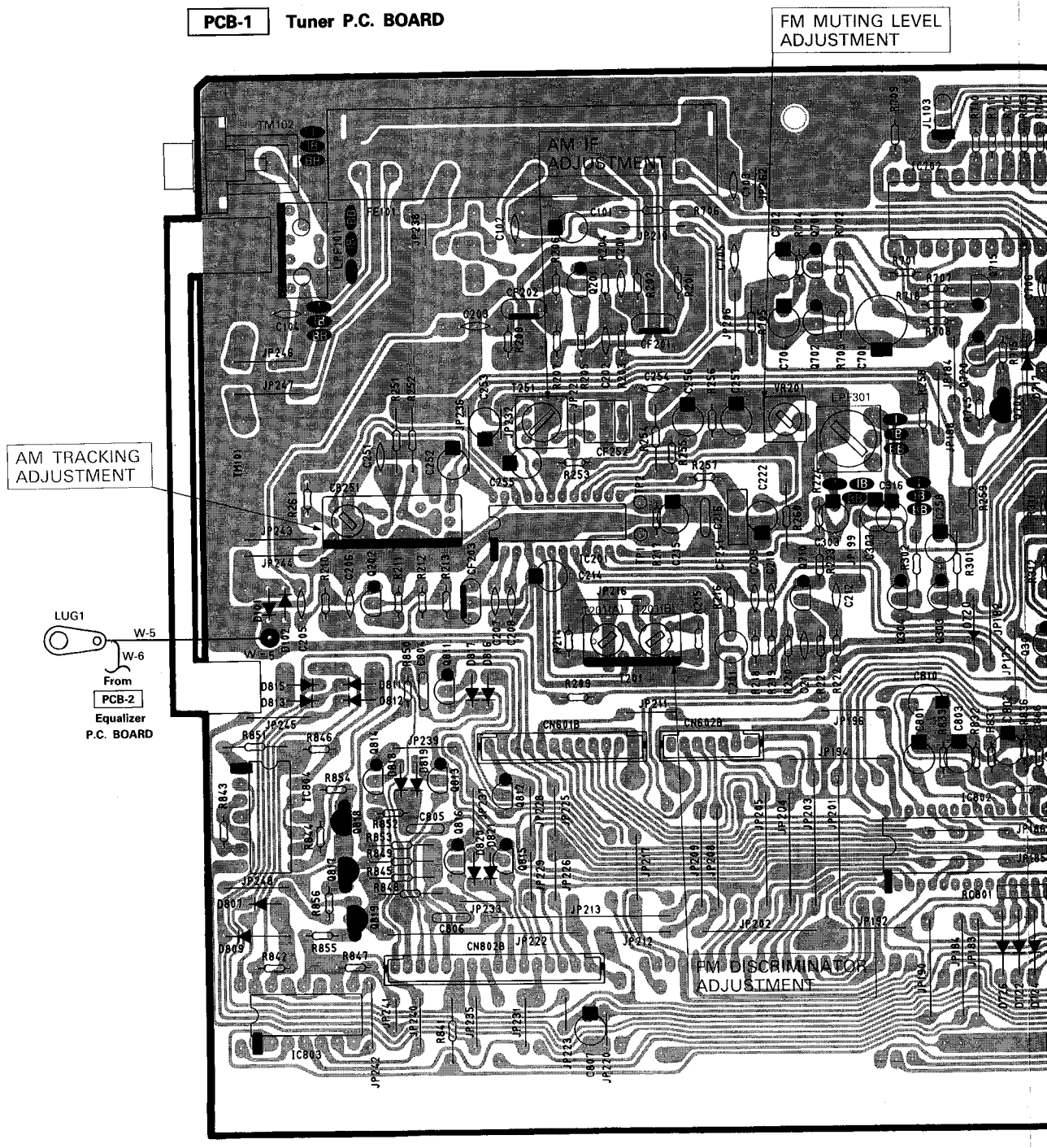
P.C. BOARDS

PCB-1 **Tuner P.C. BOARD**

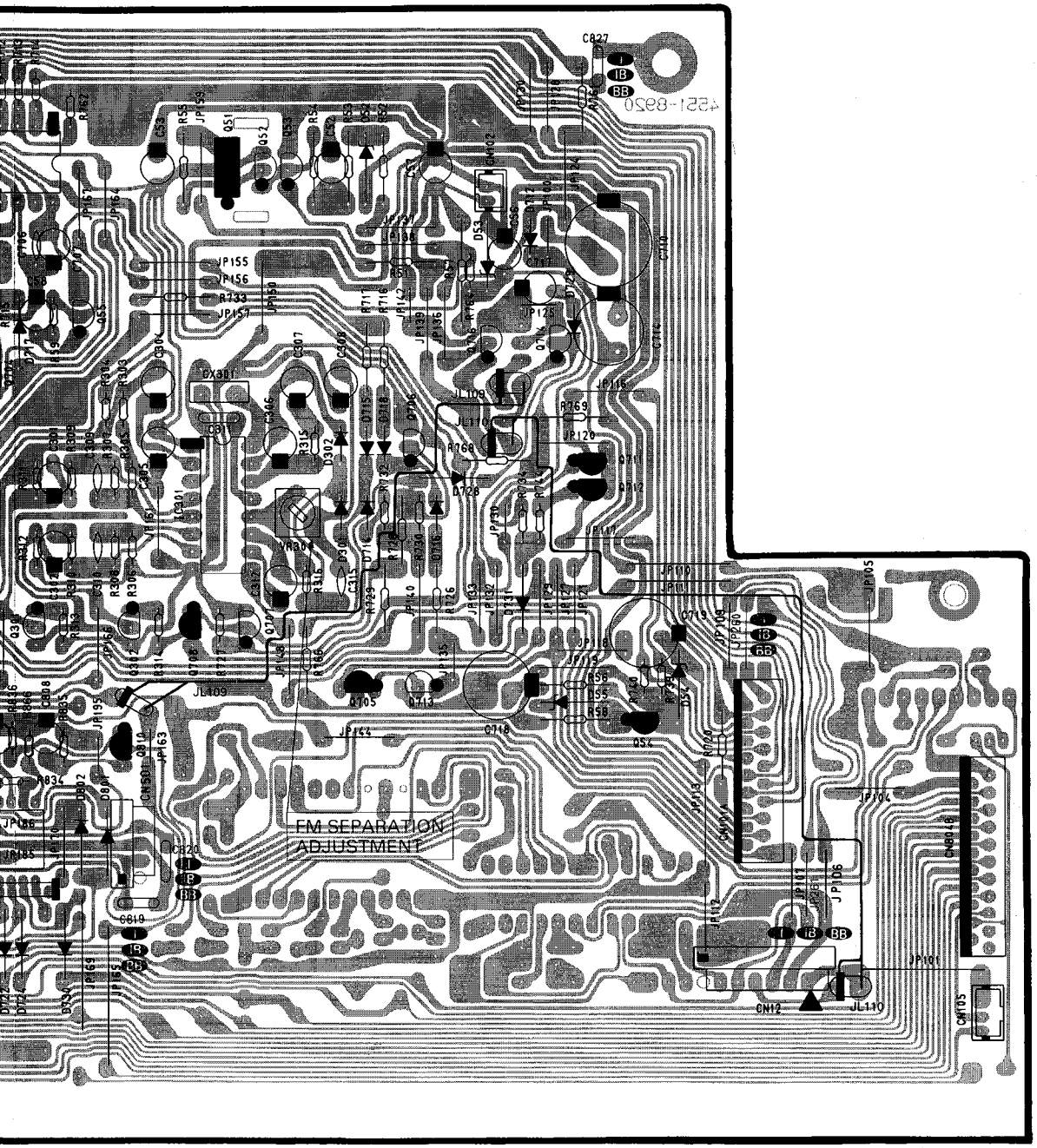


P.C. BOARDS

PCB-1 **Tuner P.C. BOARD**

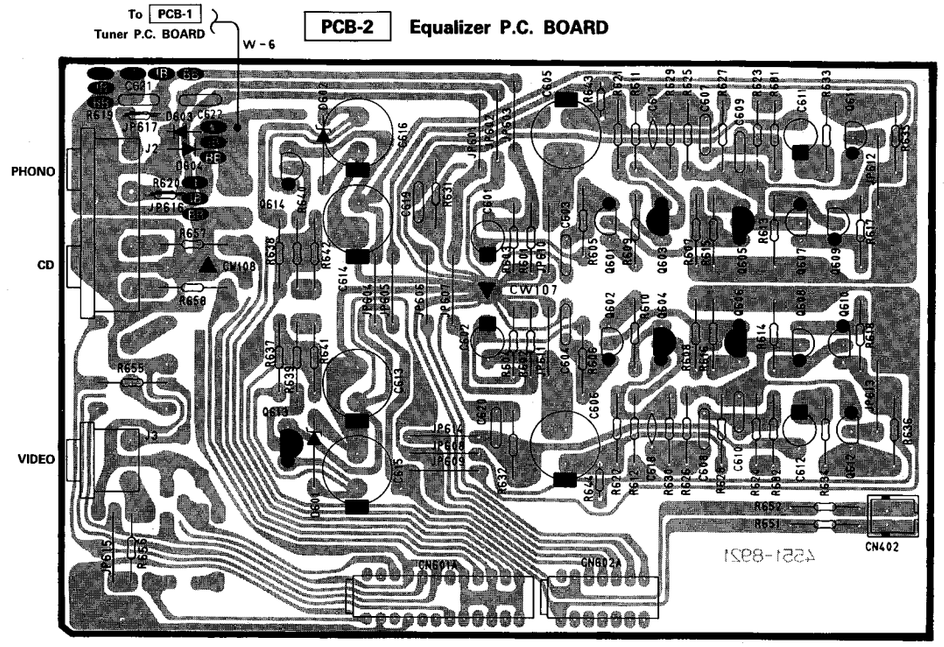


F G H I J

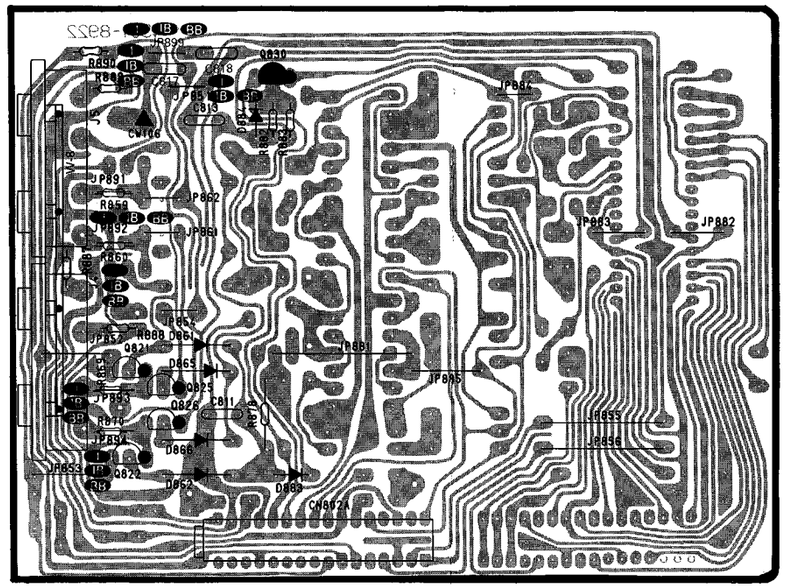


P.C. BOARDS

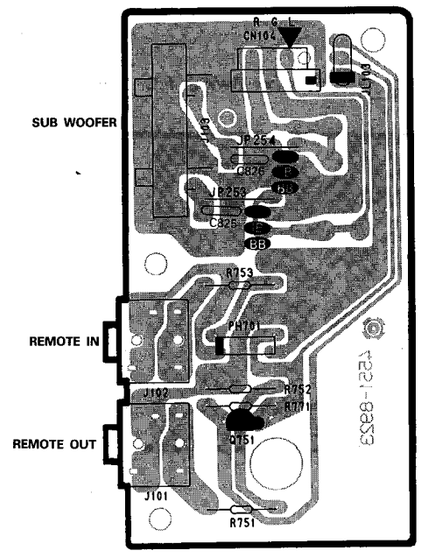
PCB-2 **Equalizer P.C. BOARD**



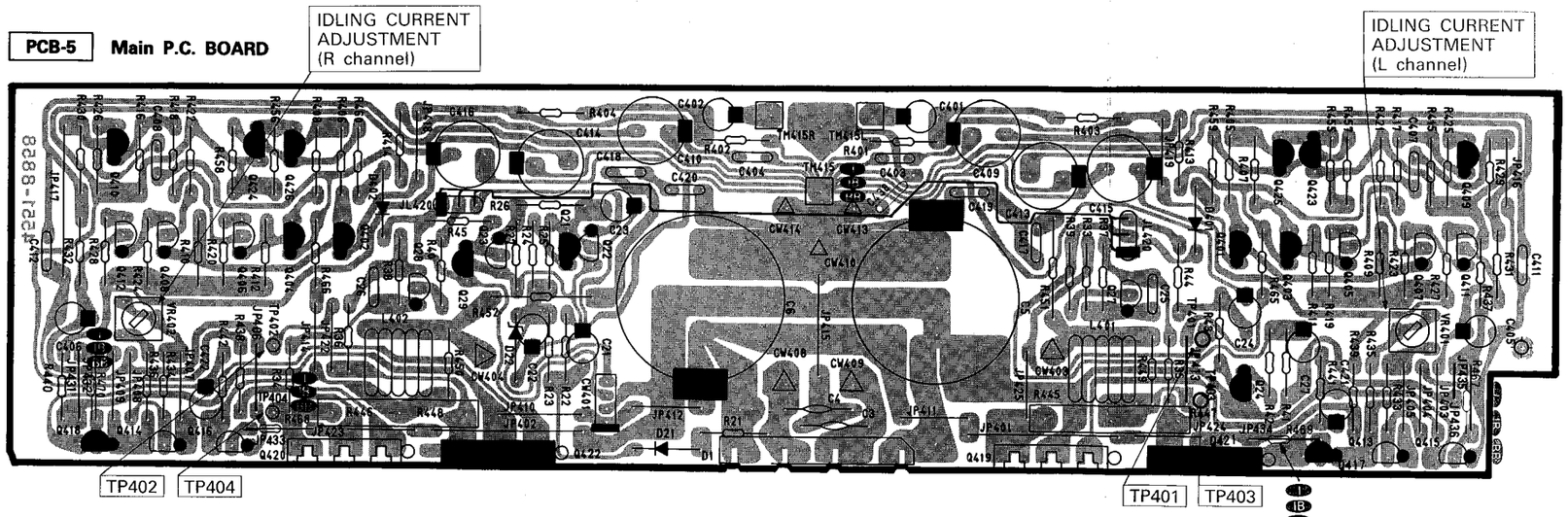
PCB-3 **Monitor P.C. BOARD**



PCB-4 **Sub Woofer P.C. BOARD**



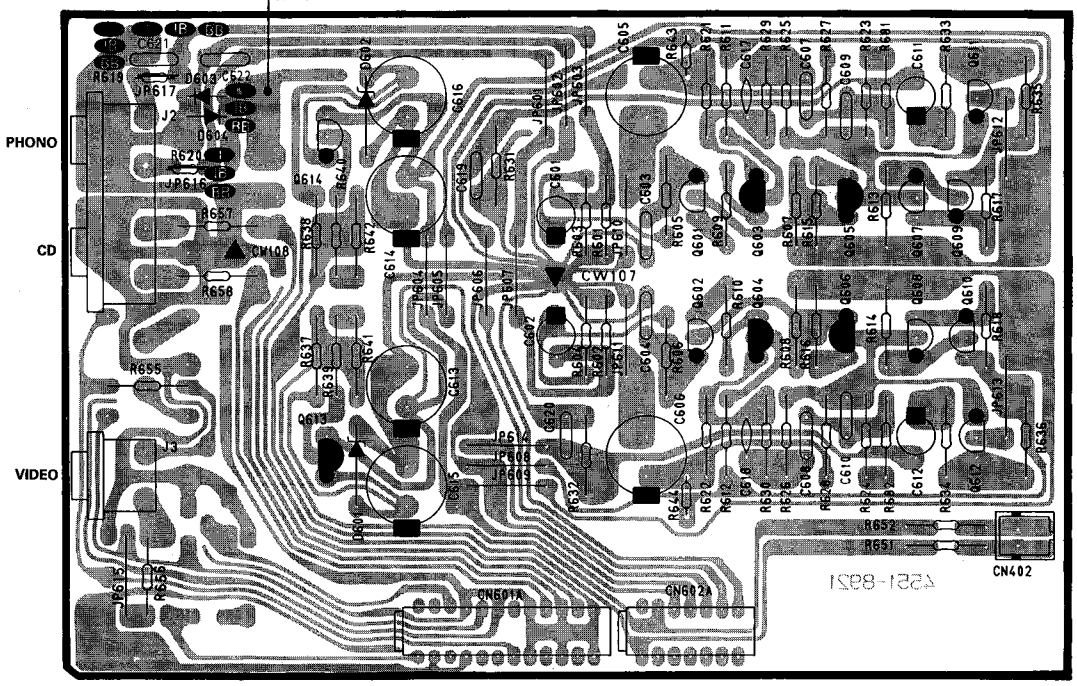
PCB-5 **Main P.C. BOARD**



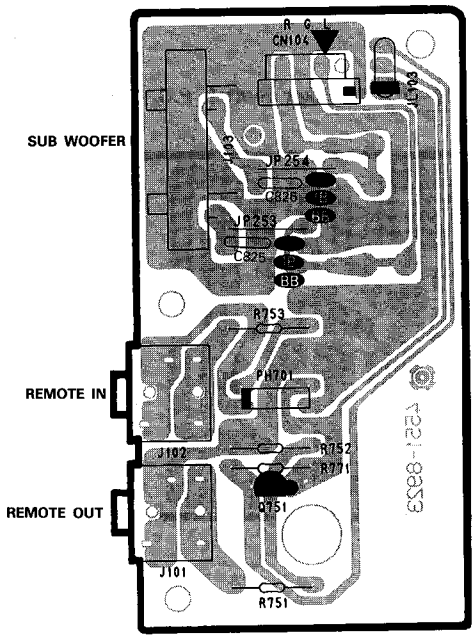
P.C. BOARDS

To PCB-1
Tuner P.C. BOARD
W-6

PCB-2 Equalizer P.C. BOARD

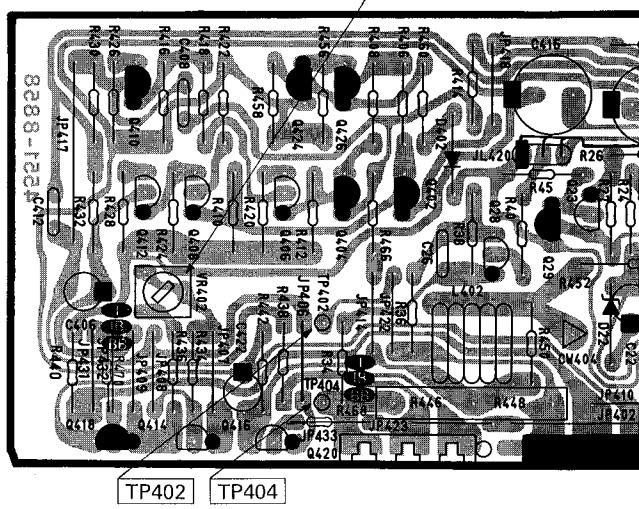


PCB-4 Sub Woofer P.C. BOARD



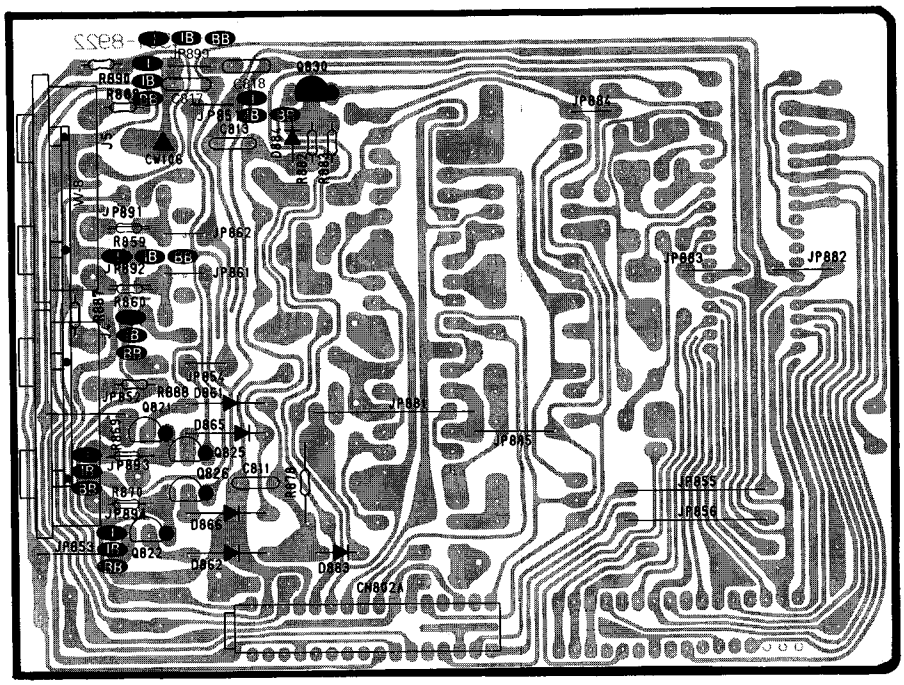
PCB-5 Main P.C. BOARD

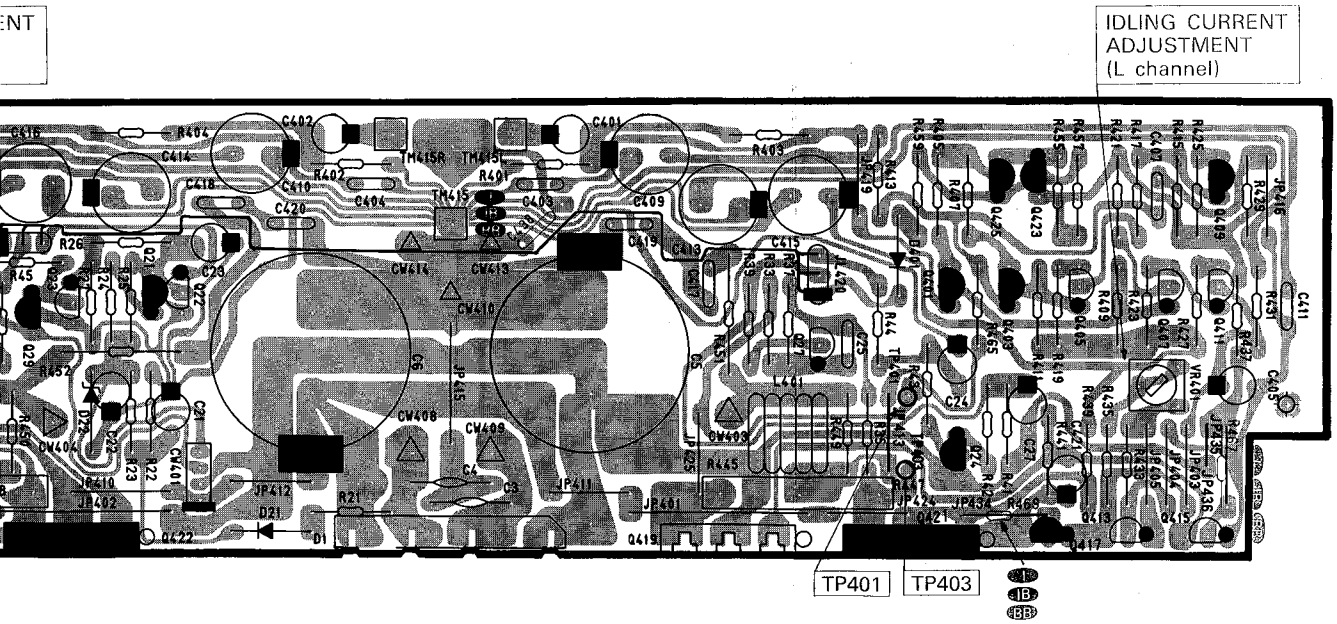
IDLING CURRENT ADJUSTMENT (R channel)



	F	G	H	I	J

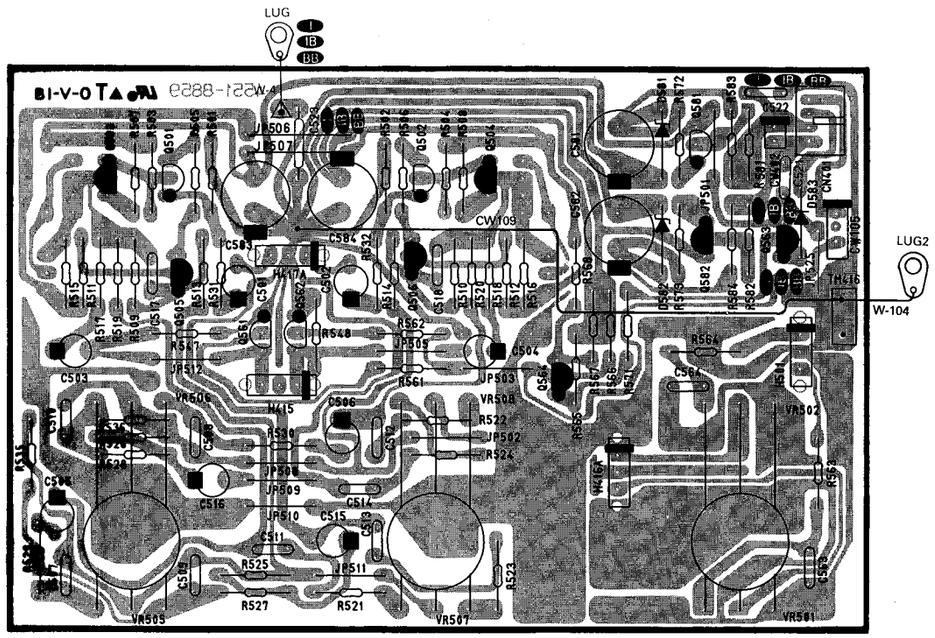
PCB-3 **Monitor P.C. BOARD**





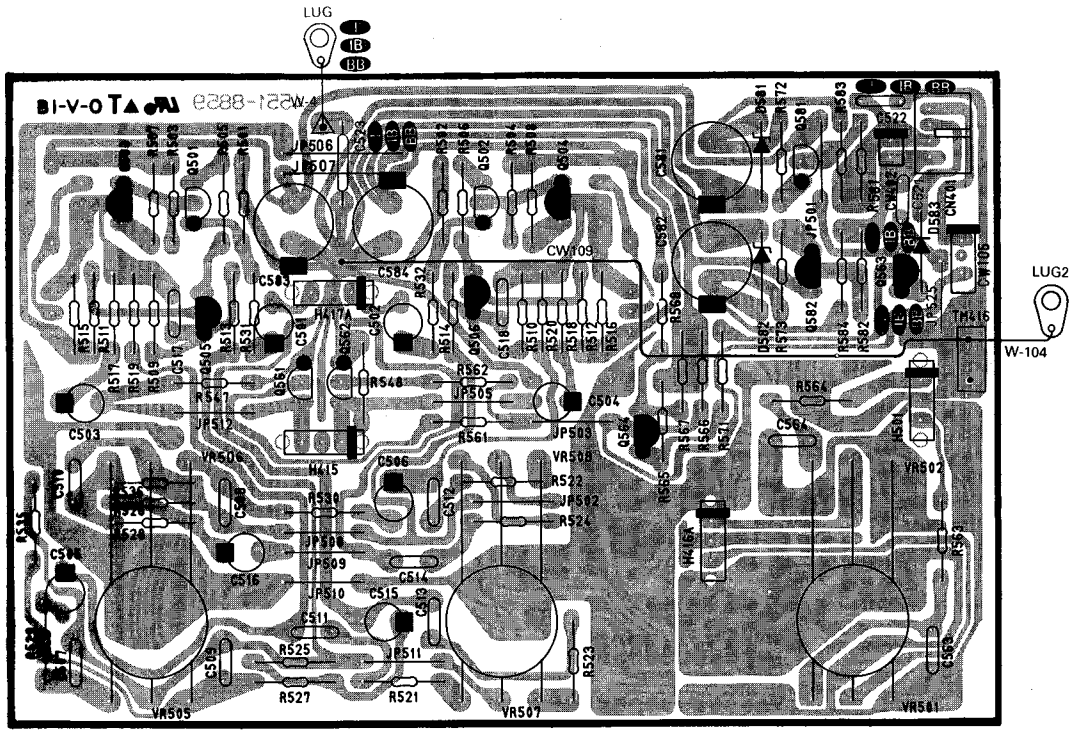
P.C. BOARDS

PCB-6 Tone Control P.C. BOARD

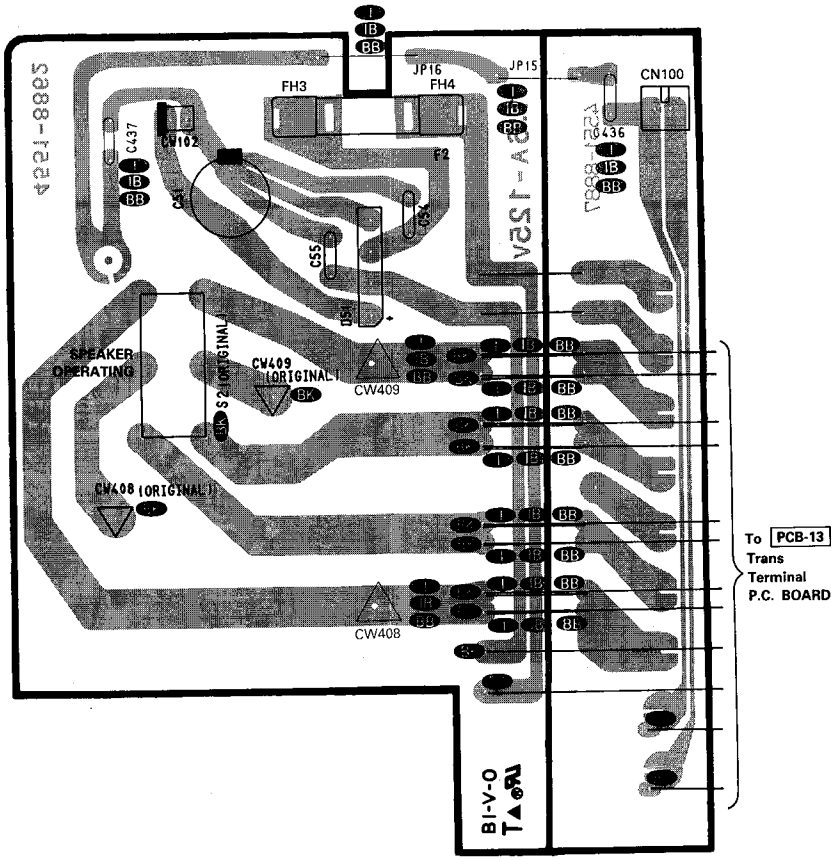


P.C. BOARDS

PCB-6 Tone Control P.C. BOARD



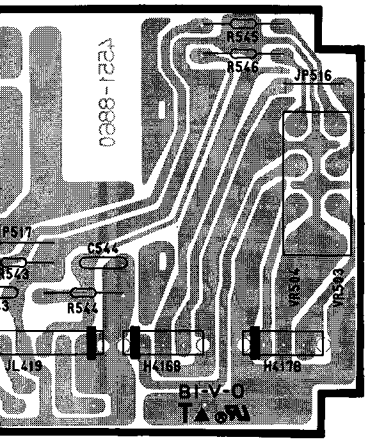
PCB-9 Secondry P.C. BOARD



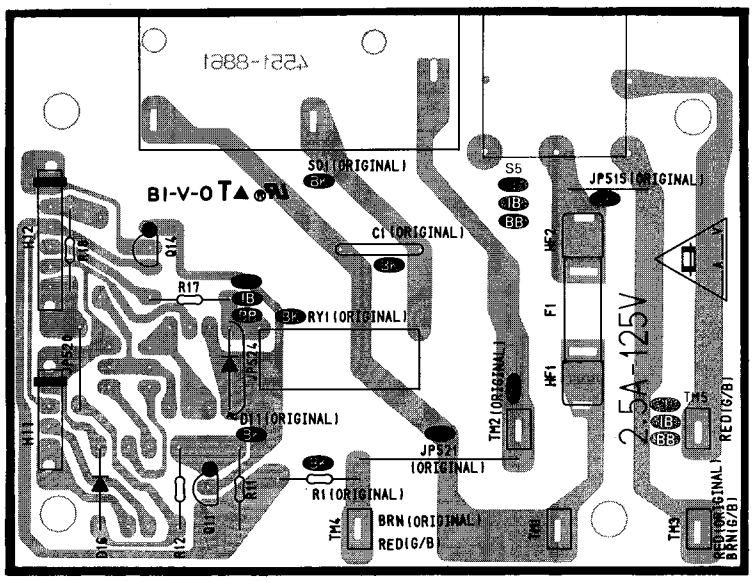
PCB-7

PCB-10

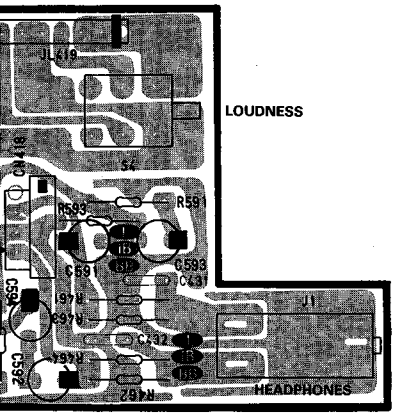
Volume P.C. BOARD



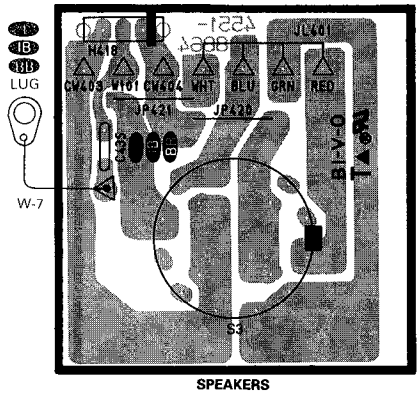
PCB-8 Primary P.C. BOARD



-10 Headphone P.C. BOARD

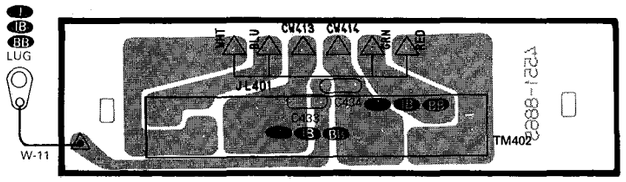


PCB-11 Speaker Switch P.C. BOARD

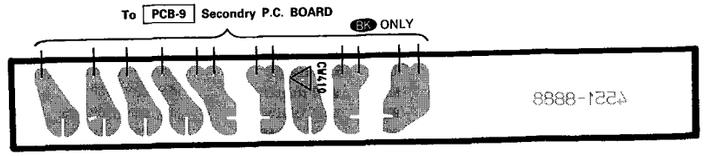


P.C. BOARDS

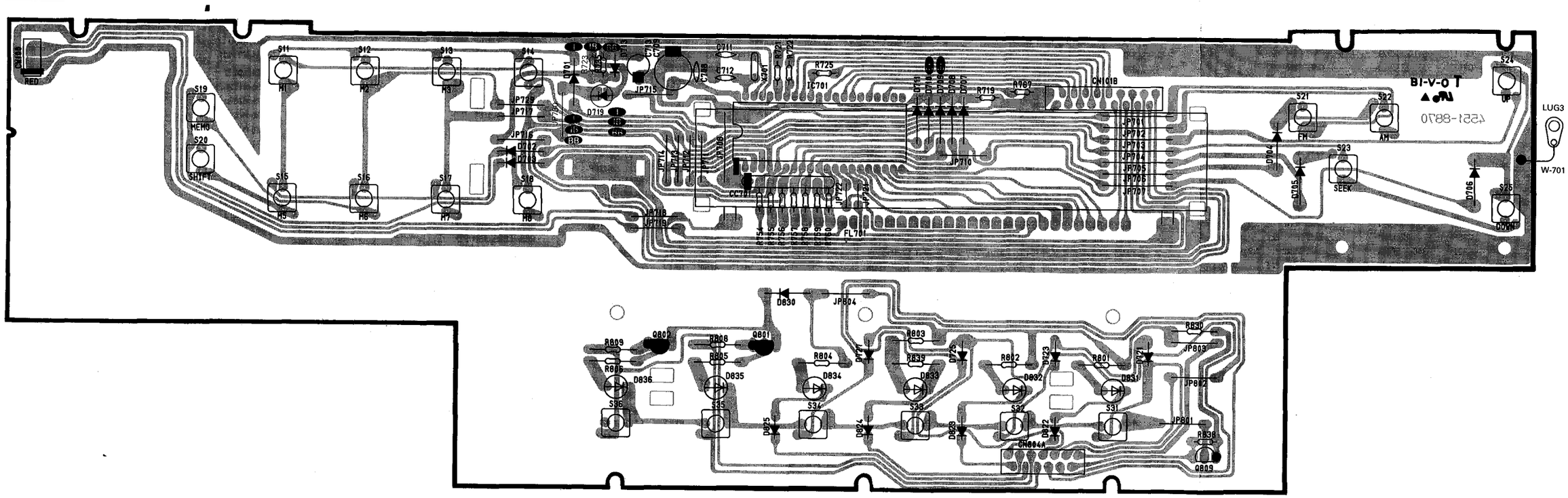
PCB-12 Speaker Terminal P.C. BOARD



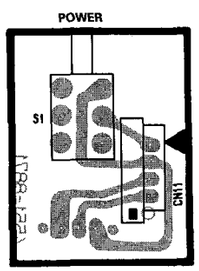
PCB-13 Trans Terminal P.C. BOARD



PCB-14 Front P.C. BOARD

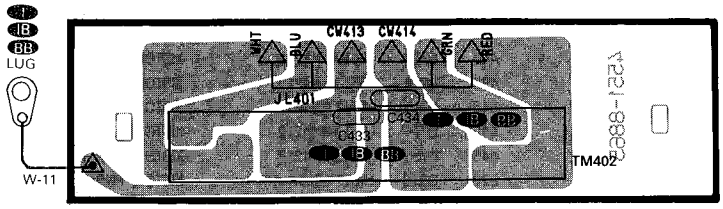


PCB-15 Power Switch P.C. BOARD

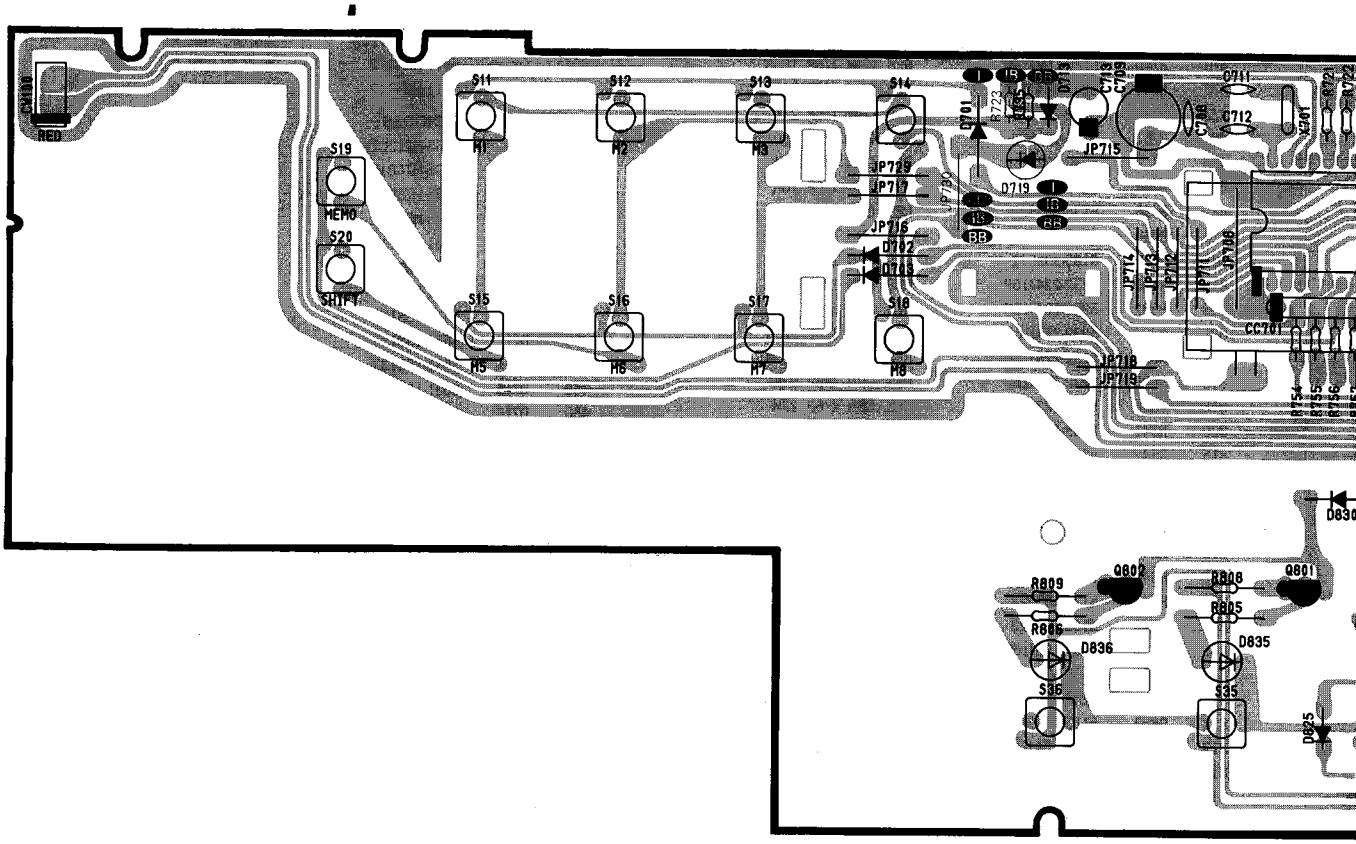


P.C. BOARDS

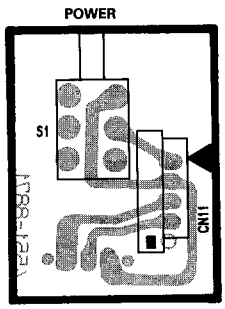
PCB-12 Speaker Terminal P.C. BOARD



PCB-14 Front P.C. BOARD

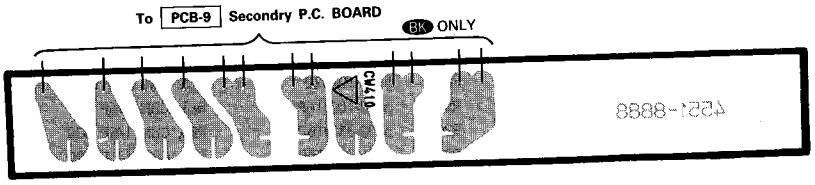


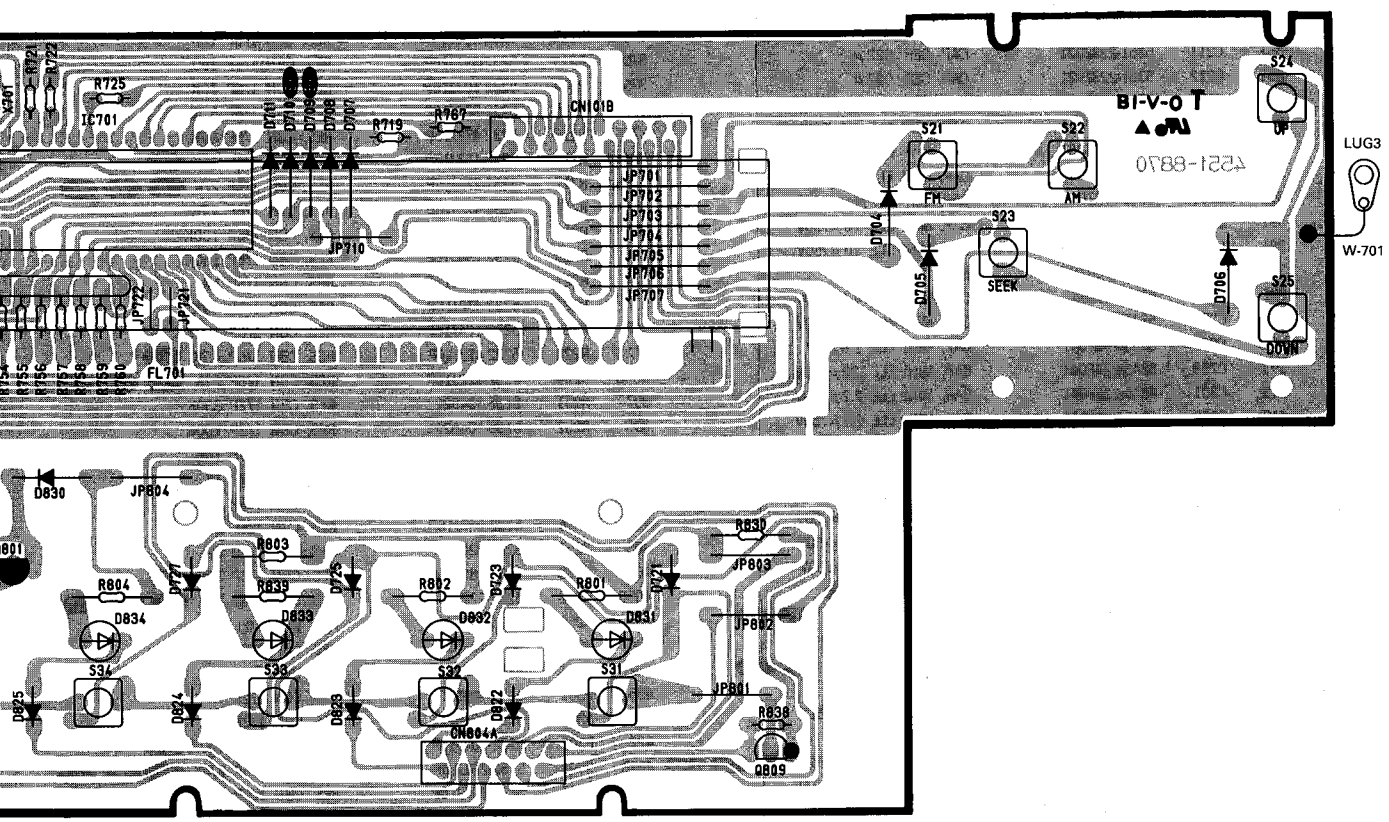
PCB-15 Power Switch P.C. BOARD



F G H I J

PCB-13 **Trans Terminal P.C. BOARD**





ELECTRICAL PARTS LIST

Ser. No.	Ref. No.	Part No.	Description
		PCB-1 TUNER P.C. BOARD	
		CAPACITORS	
515	C52	5345-107C041	CAP, MINI ELE 100μ/16V
512	C53	5345-476D041	CAP, MINI ELE 47μ/25V
513	C56	5345-107B041	CAP, MINI ELE 100μ/10V
512	C57	5345-476D041	CAP, MINI ELE 47μ/25V
512	C58	5345-476D041	CAP, MINI ELE 47μ/25V
325	C101	5345-476D041	CAP, MINI ELE 47μ/25V
327	C102	5361-223Z921	CAP, CER .022μ
329	C103	5361-150J917	CAP, CER 15p
053B	C104	5361-220JCH	CAP, CER 22p (T) (1B) (BB)
361	C201	5361-223Z921	CAP, CER .022μ
361	C202	5361-223Z921	CAP, CER .022μ
362	C203	5361-223ZF	CAP, CER .022μ
361	C205	5361-223Z921	CAP, CER .022μ
361	C206	5361-223Z921	CAP, CER .022μ
361	C207	5361-223Z921	CAP, CER .022μ
361	C208	5361-223Z921	CAP, CER .022μ
361	C209	5361-223Z921	CAP, CER .022μ
361	C210	5361-223Z921	CAP, CER .022μ
361	C211	5361-223Z921	CAP, CER .022μ
361	C212	5361-223Z921	CAP, CER .022μ
364	C214	5345-106F041	CAP, MINI ELE 10μ/50V
365	C215	5345-105F041	CAP, MINI ELE 1μ/50V
363	C216	5359-1015851	CAP, PPP 100p
393	C222	5345-224F041	CAP, MINI ELE .22μ/50V
389	C251	5361-473ZF	CAP, CER .047μ
391	C252	5345-106F041	CAP, MINI ELE 10μ/50V
391	C253	5345-106F041	CAP, MINI ELE 10μ/50V
390	C254	5361-472M919	CAP, CER 4700p
392	C255	5345-475F041	CAP, MINI ELE 4.7μ/50V
392	C256	5345-475F041	CAP, MINI ELE 4.7μ/50V
365	C257	5345-105F041	CAP, MINI ELE 1μ/50V
393	C258	5345-224F041	CAP, MINI ELE .22μ/50V
419	C301	5345-225F041	CAP, MINI ELE 2.2μ/50V
419	C302	5345-225F041	CAP, MINI ELE 2.2μ/50V
420	C303	5345-226D041	CAP, MINI ELE 22μ/25V
420	C304	5345-226D041	CAP, MINI ELE 22μ/25V
421	C305	5345-476D041	CAP, MINI ELE 47μ/25V
422	C306	5345-224F0951	CAP, MINI ELE .22μ/50V
423	C307	5345-474F0951	CAP, MINI ELE .47μ/50V
424	C308	5345-106F041	CAP, MINI ELE 10μ/50V
417	C309	5359-4715851	CAP, PPP 470p (BK)
417B	C309	5359-2715851	CAP, PPP 270p (T) (1B) (BB)
417	C310	5359-4715851	CAP, PPP 470p (BK)
417B	C310	5359-2715851	CAP, PPP 270p (T) (1B) (BB)
418	C311	5354-473K1HM	CAP, MYL .047μ
419	C312	5345-225F041	CAP, MINI ELE 2.2μ/50V
425	C315	5361-101K918	CAP, CER 100p
055B	C316	5345-226D041	CAP, MINI ELE 22μ/25V (T) (1B) (BB)
453	C701	5345-227C041	CAP, MINI ELE 220μ/16V
459	C702	5345-224F0951	CAP, MINI ELE .22μ/50V
454	C704	5345-684F0951	CAP, MINI ELE .68μ/50V
460	C705	5361-223Z921	CAP, CER .022μ
461	C706	5361-102K918	CAP, CER 1000p
455	C707	5345-476D041	CAP, MINI ELE 47μ/25V
458	C710	5345-228A041	CAP, MINI ELE 2200μ/6.3V
456	C714	5345-108A041	CAP, MINI ELE 1000μ/6.3V
494	C717	5345-105F041	CAP, MINI ELE 1μ/50V
495	C718	5345-227D041	CAP, MINI ELE 220μ/25V
496	C719	5345-106F041	CAP, MINI ELE 10μ/50V
809	C801	5345-106F041	CAP, MINI ELE 10μ/50V
809	C802	5345-106F041	CAP, MINI ELE 10μ/50V
810	C803	5345-104F041	CAP, MINI ELE .1μ/50V
808	C804	5354-104593	CAP, MYL .1μ
808	C805	5354-104593	CAP, MYL .1μ
808	C806	5354-104593	CAP, MYL .1μ
809	C807	5345-106F041	CAP, MINI ELE 10μ/50V
809	C808	5345-106F041	CAP, MINI ELE 10μ/50V
823	C810	5345-474F041	CAP, MINI ELE .47μ/50V
050B	C819	5359-2215851	CAP, PPP 220p (T) (1B) (BB)
050B	C820	5359-2215851	CAP, PPP 220p (T) (1B) (BB)
057B	C827	5354-103K1HM	CAP, MYL .01μ (T) (1B) (BB)

Ser. No.	Ref. No.	Part No.	Description
		RESISTORS	
524	⚠R51	5102-2R25116	RES, FUSE 2.2
517	R52	5135-272522	RES, CBN 1/2P 2.7K
518	R53	5135-101522	RES, CBN 1/2P 100
518	R54	5135-101522	RES, CBN 1/2P 100
519	R55	5135-331522	RES, CBN 1/2P 330
520	⚠R56	5102-2205116	RES, FUSE 22
523	R57	5171-221593	RES, MTL 1P 220
521	R58	5135-102522	RES, CBN 1/2P 1K
522	R59	5232-102J16P	RES, CBN 1/6P 1K
369	R201	5232-331J16P	RES, CBN 1/6P 330
370	R202	5232-391J16P	RES, CBN 1/6P 390
374	R203	5232-102J16P	RES, CBN 1/6P 1K
371	R204	5232-154J16P	RES, CBN 1/6P 150K
372	R205	5232-100J16P	RES, CBN 1/6P 10
373	R206	5232-101J16P	RES, CBN 1/6P 100
370	R207	5232-391J16P	RES, CBN 1/6P 390
370	R208	5232-391J16P	RES, CBN 1/6P 390
374	R209	5232-102J16P	RES, CBN 1/6P 1K
371	R210	5232-154J16P	RES, CBN 1/6P 150K
372	R211	5232-100J16P	RES, CBN 1/6P 10
373	R212	5232-101J16P	RES, CBN 1/6P 100
370	R213	5232-391J16P	RES, CBN 1/6P 390
375	R214	5232-103J16P	RES, CBN 1/6P 10K
376	R215	5232-332J16P	RES, CBN 1/6P 3.3K
377	R216	5232-472J16P	RES, CBN 1/6P 4.7K
378	R217	5232-153J16P	RES, CBN 1/6P 15K (BK)
378B	R217	5232-273J16P	RES, CBN 1/6P 27K (T) (1B) (BB)
377	R218	5232-472J16P	RES, CBN 1/6P 4.7K
368	R219	5232-104J16P	RES, CBN 1/6P 100K
366	R220	5232-154J16P	RES, CBN 1/6P 150K
374	R221	5232-102J16P	RES, CBN 1/6P 1K
377	R222	5232-472J16P	RES, CBN 1/6P 4.7K
367	R223	5232-104J16P	RES, CBN 1/6P 100K
377	R224	5232-472J16P	RES, CBN 1/6P 4.7K (BK)
054B	R224	5232-222J16P	RES, CBN 1/6P 22K (T) (1B) (BB)
397	R251	5135-334522	RES, CBN 1/2P 330K
398	R252	5135-104522	RES, CBN 1/2P 100K
401	R253	5232-103J16P	RES, CBN 1/6P 10K
399	R254	5135-102522	RES, CBN 1/2P 1K
401	R255	5232-103J16P	RES, CBN 1/6P 10K
402	R256	5232-223J16P	RES, CBN 1/6P 22K
403	R257	5232-820J16P	RES, CBN 1/6P 82
405	R258	5232-183J16P	RES, CBN 1/6P 18K (BK)
405B	R258	5232-223J16P	RES, CBN 1/6p 22K (T) (1B) (BB)
404	R259	5135-152522	RES, CBN 1/2P 1.5K
406	R260	5135-103522	RES, CBN 1/2P 10K
407	R261	5232-471J16P	RES, CBN 1/6P 470
435	R301	5135-105522	RES, CBN 1/2P 1M
435	R302	5135-105522	RES, CBN 1/2P 1M
427	R303	5232-104J16P	RES, CBN 1/6P 100K (BK)
427B	R303	5232-274J16P	RES, CBN 1/6P 270K (T) (1B) (BB)
427	R304	5232-104J16P	RES, CBN 1/6P 100K (BK)
427B	R304	5232-274J16P	RES, CBN 1/6P 270K (T) (1B) (BB)
428	R305	5232-753J16P	RES, CBN 1/6P 75K
428	R306	5232-753J16P	RES, CBN 1/6P 75K
429	R307	5232-164J16P	RES, CBN 1/6P 160K (BK)
429B	R307	5232-184J16P	RES, CBN 1/6P 180K (T) (1B) (BB)
429	R308	5232-164J16P	RES, CBN 1/6P 160K (BK)
429B	R308	5232-184J16P	RES, CBN 1/6P 180K (T) (1B) (BB)
430	R309	5232-182J16P	RES, CBN 1/6P 1.8K
430	R310	5232-182J16P	RES, CBN 1/6P 1.8K
431	R311	5232-103J16P	RES, CBN 1/6P 10K
431	R312	5232-103J16P	RES, CBN 1/6P 10K
431	R313	5232-103J16P	RES, CBN 1/6P 10K
431	R314	5232-103J16P	RES, CBN 1/6P 10K
432	R315	5232-472J16P	RES, CBN 1/6P 4.7K
431	R316	5232-103J16P	RES, CBN 1/6P 10K
465	R701	5232-103J16P	RES, CBN 1/6P 10K
465	R702	5232-103J16P	RES, CBN 1/6P 10K
466	R703	5232-473J16P	RES, CBN 1/6P 47K
467	R704	5232-222J16P	RES, CBN 1/6P 2.2K
471	R705	5135-102522	RES, CBN 1/2P 1K
471	R706	5135-102522	RES, CBN 1/2P 1K
465	R707	5232-103J16P	RES, CBN 1/6P 10K

Ser. No.	Ref. No.	Part No.	Description
468	R708	5232-102J16P	RES, CBN 1/6P 1K
470	R709	5232-104J16P	RES, CBN 1/6P 100K
467	R710	5232-222J16P	RES, CBN 1/6P 2.2K
467	R711	5232-222J16P	RES, CBN 1/6P 2.2K
467	R712	5232-222J16P	RES, CBN 1/6P 2.2K
467	R713	5232-222J16P	RES, CBN 1/6P 2.2K
469	R714	5232-472J16P	RES, CBN 1/6P 4.7K
472	R715	5232-273J16P	RES, CBN 1/6P 27K
473	R716	5135-103522	RES, CBN 1/2P 10K
473	R717	5135-103522	RES, CBN 1/2P 10K
465	R718	5232-103J16P	RES, CBN 1/6P 10K
471	R720	5135-102522	RES, CBN 1/2P 1K
473	R726	5135-103522	RES, CBN 1/2P 10K
477	R727	5232-473J16P	RES, CBN 1/6P 47K
476	R728	5135-223522	RES, CBN 1/2P 22K
473	R729	5135-103522	RES, CBN 1/2P 10K
464	R730	5232-223J16P	RES, CBN 1/6P 22K
465	R732	5232-103J16P	RES, CBN 1/6P 10K
478	R733	5135-104522	RES, CBN 1/2P 100K
465	R734	5232-103J16P	RES, CBN 1/6P 10K
470	R739	5232-104J16P	RES, CBN 1/6P 100K
470	R740	5232-104J16P	RES, CBN 1/6P 100K
470	R744	5232-104J16P	RES, CBN 1/6P 100K
472	R745	5232-273J16P	RES, CBN 1/6P 27K
483	R761	5135-101522	RES, CBN 1/2P 100
484	R762	5232-332J16P	RES, CBN 1/6P 3.3K
465	R764	5232-103J16P	RES, CBN 1/6P 10K
482	R766	5135-332522	RES, CBN 1/2P 3.3K
474	R768	5135-472522	RES, CBN 1/2P 4.7K
482	R769	5135-332522	RES, CBN 1/2P 3.3K
819	R831	5232-224J16P	RES, CBN 1/6P 220K
815	R832	5232-104J16P	RES, CBN 1/6P 100K
821	R833	5232-274J16P	RES, CBN 1/6P 270K
819	R834	5232-224J16P	RES, CBN 1/6P 220K
818	R835	5232-223J16P	RES, CBN 1/6P 22K
818	R836	5232-223J16P	RES, CBN 1/6P 22K
820	R841	5135-472522	RES, CBN 1/2P 4.7K
815	R842	5232-104J16P	RES, CBN 1/6P 100K
817	R843	5232-473J16P	RES, CBN 1/6P 47K
817	R844	5232-473J16P	RES, CBN 1/6P 47K
812	R845	5135-104522	RES, CBN 1/2P 100K
815	R846	5232-104J16P	RES, CBN 1/6P 100K
817	R847	5232-473J16P	RES, CBN 1/6P 47K
813	R848	5135-105522	RES, CBN 1/2P 1M
812	R849	5135-104522	RES, CBN 1/2P 100K
816	R850	5232-105J16P	RES, CBN 1/6P 1M
812	R851	5135-104522	RES, CBN 1/2P 100K
816	R852	5232-105J16P	RES, CBN 1/6P 1M
814	R853	5135-104522	RES, CBN 1/2P 100K
819	R854	5232-224J16P	RES, CBN 1/6P 220K
819	R855	5232-224J16P	RES, CBN 1/6P 220K
819	R856	5232-224J16P	RES, CBN 1/6P 220K
807	R866	5232-100J16P	RES, CBN 1/6P 10
		INTEGRATED CIRCUITS	
351	IC201	5653-LA1266	IC, LINEAR
411	IC301	5653-LA3410	IC, LINEAR
442	IC702	5654-TC9227P	IC, DIGITAL
801	IC802	5654-LC7818	IC, DIGITAL
802	IC803	5654-TC4011BP	IC, DIGITAL
802	IC804	5654-TC4011BP	IC, DIGITAL
		TRANSISTORS	
501	Q51	5612-1375	XISTOR, PNP A
502	Q52	5613-3311A (R)	XISTOR, NPN R
503	Q53	5613-UN4212	XISTOR, NPN R
504	Q54	5612-647 (C)	XISTOR, PNP A
502	Q55	5613-3311A (R)	XISTOR, NPN R
352	Q201	5613-2058 (N) OR (P)	XISTOR, NPN R
352	Q202	5613-2058 (N) OR (P)	XISTOR, NPN R
412	Q301	5614-1450 (T)	XISTOR, NPN A
412	Q302	5614-1450 (T)	XISTOR, NPN A
413	Q303	5616-2SK364BL	FET, N-CH
413	Q304	5616-2SK364BL	FET, N-CH
443	Q701	5613-2240 (BL)	XISTOR, NPN R
444	Q702	5613-3311A (R)	XISTOR, NPN R

Ser. No.	Ref. No.	Part No.	Description
446	Q704	5611-UN4112	XISTOR, PNP R
446	Q705	5611-UN4112	XISTOR, PNP R
445	Q706	5613-UN4212	XISTOR, NPN R
444	Q707	5613-3311A (R)	XISTOR, NPN R
446	Q708	5611-UN4112	XISTOR, PNP R
444	Q710	5613-3311A (R)	XISTOR, NPN R
446	Q711	5611-UN4112	XISTOR, PNP R
448	Q712	5611-1309A (R)	XISTOR, PNP R
445	Q713	5613-UN4212	XISTOR, NPN R
498	Q714	5613-UN4213	XISTOR, NPN R
445	Q715	5613-UN4212	XISTOR, NPN R
445	Q716	5613-UN4212	XISTOR, NPN R
445	Q720	5613-UN4212	XISTOR, NPN R
822	Q810	5611-1309A (R)	XISTOR, PNP R
803	Q811	5616-2SK364BL	FET, N-CH
803	Q812	5616-2SK364BL	FET, N-CH
803	Q813	5616-2SK364BL	FET, N-CH
803	Q814	5616-2SK364BL	FET, N-CH
803	Q815	5616-2SK364BL	FET, N-CH
803	Q816	5616-2SK364BL	FET, N-CH
804	Q817	5611-UN4112	XISTOR, PNP R
804	Q818	5611-UN4112	XISTOR, PNP R
804	Q819	5611-UN4112	XISTOR, PNP R
		DIODES	
506	D52	5635-HZ12C2L	DIODE, ZENER
507	D53	5635-HZ6B1L	DIODE, ZENER
508	D54	5635-HZ5B2	DIODE, ZENER
509	D55	5635-HZ24-1L	DIODE, ZENER
416	D101	5631-1SS133	DIODE, DET
416	D102	5631-1SS133	DIODE, DET
416	D301	5631-1SS133	DIODE, DET
416	D302	5631-1SS133	DIODE, DET
450	D712	5631-1SS133	DIODE, DET
450	D714	5631-1SS133	DIODE, DET
450	D715	5631-1SS133	DIODE, DET
450	D716	5631-1SS133	DIODE, DET
452	D717	5631-1S2473	DIODE, DET
450	D718	5631-1SS133	DIODE, DET
452	D720	5631-1S2473	DIODE, DET
856	D722	5631-1S2473	DIODE, DET
856	D724	5631-1S2473	DIODE, DET
856	D726	5631-1S2473	DIODE, DET
805	D728	5631-1S2473	DIODE, DET
450	D729	5631-1SS133	DIODE, DET
856	D730	5631-1S2473	DIODE, DET
452	D731	5631-1S2473	DIODE, DET
805	D801	5631-1S2473	DIODE, DET
805	D802	5631-1S2473	DIODE, DET
806	D807	5631-1SS133	DIODE, DET
805	D809	5631-1S2473	DIODE, DET
806	D811	5631-1SS133	DIODE, DET
806	D812	5631-1SS133	DIODE, DET
806	D813	5631-1SS133	DIODE, DET
806	D815	5631-1SS133	DIODE, DET
806	D816	5631-1SS133	DIODE, DET
806	D817	5631-1SS133	DIODE, DET
806	D818	5631-1SS133	DIODE, DET
806	D819	5631-1SS133	DIODE, DET
806	D820	5631-1SS133	DIODE, DET
		COIL	
358	L201	5995-2R2J69	COIL W/CORE
		TRANSFORMERS	
357	T201	5572-10201	DISCRI 7
384	T251	5552-00712	IFT, AM 7
		CONTROLS	
354	VR201	5101-50301934	RES, SEMI FIX 50K
415	VR301	5101-10401934	RES, SEMI FIX 100K

ELECTRICAL PARTS LIST

PCB-1 TUNER P.C. BOARD

CAPACITORS

Ser. No.	Ref. No.	Part No.	Description
515	C52	5345-107C041	CAP, MINI ELE 100 μ/16V
512	C53	5345-476D041	CAP, MINI ELE 47 μ/25V
513	C56	5345-107B041	CAP, MINI ELE 100 μ/10V
512	C57	5345-476D041	CAP, MINI ELE 47 μ/25V
512	C58	5345-476D041	CAP, MINI ELE 47 μ/25V
325	C101	5345-476D041	CAP, MINI ELE 47 μ/25V
327	C102	5361-223Z921	CAP, CER .022 μ
329	C103	5361-150J917	CAP, CER 15p
053B	C104	5361-220JCH	CAP, CER 22p (I) (IB) (BB)
361	C201	5361-223Z921	CAP, CER .022 μ
361	C202	5361-223Z921	CAP, CER .022 μ
362	C203	5361-223ZF	CAP, CER .022 μ
361	C205	5361-223Z921	CAP, CER .022 μ
361	C206	5361-223Z921	CAP, CER .022 μ
361	C207	5361-223Z921	CAP, CER .022 μ
361	C208	5361-223Z921	CAP, CER .022 μ
361	C209	5361-223Z921	CAP, CER .022 μ
361	C210	5361-223Z921	CAP, CER .022 μ
361	C211	5361-223Z921	CAP, CER .022 μ
361	C212	5361-223Z921	CAP, CER .022 μ
364	C214	5345-106F041	CAP, MINI ELE 10 μ/50V
365	C215	5345-105F041	CAP, MINI ELE 1 μ/50V
363	C216	5359-1015851	CAP, PPP 100p
393	C222	5345-224F041	CAP, MINI ELE .22 μ/50V
389	C251	5361-473ZF	CAP, CER .047 μ
391	C252	5345-106F041	CAP, MINI ELE 10 μ/50V
391	C253	5345-106F041	CAP, MINI ELE 10 μ/50V
390	C254	5361-472M919	CAP, CER 4700p
392	C255	5345-475F041	CAP, MINI ELE 4.7 μ/50V
392	C256	5345-475F041	CAP, MINI ELE 4.7 μ/50V
365	C257	5345-105F041	CAP, MINI ELE 1 μ/50V
393	C258	5345-224F041	CAP, MINI ELE .22 μ/50V
419	C301	5345-225F041	CAP, MINI ELE 2.2 μ/50V
419	C302	5345-225F041	CAP, MINI ELE 2.2 μ/50V
420	C303	5345-226D041	CAP, MINI ELE 22 μ/25V
420	C304	5345-226D041	CAP, MINI ELE 22 μ/25V
421	C305	5345-476D041	CAP, MINI ELE 47 μ/25V
422	C306	5345-224F0951	CAP, MINI ELE .22 μ/50V
423	C307	5345-474F0951	CAP, MINI ELE .47 μ/50V
424	C308	5345-106F041	CAP, MINI ELE 10 μ/50V
417	C309	5359-4715851	CAP, PPP 470p (BK)
417B	C309	5359-2715851	CAP, PPP 270p (I) (IB) (BB)
417	C310	5359-4715851	CAP, PPP 470p (BK)
417B	C310	5359-2715851	CAP, PPP 270p (I) (IB) (BB)
418	C311	5354-473K1HM	CAP, MYL .047 μ
419	C312	5345-225F041	CAP, MINI ELE 2.2 μ/50V
425	C315	5361-101K918	CAP, CER 100p
055B	C316	5345-226D041	CAP, MINI ELE 22 μ/25V (I) (IB) (BB)
453	C701	5345-227C041	CAP, MINI ELE 220 μ/16V
459	C702	5345-224F0951	CAP, MINI ELE .22 μ/50V
454	C704	5345-684F0951	CAP, MINI ELE .68 μ/50V
460	C705	5361-223Z921	CAP, CER .022 μ
461	C706	5361-102K918	CAP, CER 1000p
455	C707	5345-476D041	CAP, MINI ELE 47 μ/25V
458	C710	5345-228A041	CAP, MINI ELE 2200 μ/6.3V
456	C714	5345-108A041	CAP, MINI ELE 1000 μ/6.3V
494	C717	5345-105F041	CAP, MINI ELE 1 μ/50V
495	C718	5345-227D041	CAP, MINI ELE 220 μ/25V
496	C719	5345-106F041	CAP, MINI ELE 10 μ/50V
809	C801	5345-106F041	CAP, MINI ELE 10 μ/50V
809	C802	5345-106F041	CAP, MINI ELE 10 μ/50V
810	C803	5345-104F041	CAP, MINI ELE .1 μ/50V
808	C804	5354-104593	CAP, MYL .1 μ
808	C805	5354-104593	CAP, MYL .1 μ
808	C806	5354-104593	CAP, MYL .1 μ
809	C807	5345-106F041	CAP, MINI ELE 10 μ/50V
809	C808	5345-106F041	CAP, MINI ELE 10 μ/50V
823	C810	5345-474F041	CAP, MINI ELE .47 μ/50V
050B	C819	5359-2215851	CAP, PPP 220p (I) (IB) (BB)
050B	C820	5359-2215851	CAP, PPP 220p (I) (IB) (BB)
057B	C827	5354-103K1HM	CAP, MYL .01 μ (I) (IB) (BB)

RESISTORS

Ser. No.	Ref. No.	Part No.	Description
524	⚠R51	5102-2R25116	RES, FUSE 2.2
517	R52	5135-272522	RES, CBN 1/2P 2.7K
518	R53	5135-101522	RES, CBN 1/2P 100
518	R54	5135-101522	RES, CBN 1/2P 100
519	R55	5135-331522	RES, CBN 1/2P 330
520	⚠R56	5102-2205116	RES, FUSE 22
523	R57	5171-221593	RES, MTL 1P 220
521	R58	5135-102522	RES, CBN 1/2P 1K
522	R59	5232-102J16P	RES, CBN 1/6P 1K
369	R201	5232-331J16P	RES, CBN 1/6P 330
370	R202	5232-391J16P	RES, CBN 1/6P 390
374	R203	5232-102J16P	RES, CBN 1/6P 1K
371	R204	5232-154J16P	RES, CBN 1/6P 150K
372	R205	5232-100J16P	RES, CBN 1/6P 10
373	R206	5232-101J16P	RES, CBN 1/6P 100
370	R207	5232-391J16P	RES, CBN 1/6P 390
370	R208	5232-391J16P	RES, CBN 1/6P 390
374	R209	5232-102J16P	RES, CBN 1/6P 1K
371	R210	5232-154J16P	RES, CBN 1/6P 150K
372	R211	5232-100J16P	RES, CBN 1/6P 10
373	R212	5232-101J16P	RES, CBN 1/6P 100
370	R213	5232-391J16P	RES, CBN 1/6P 390
375	R214	5232-103J16P	RES, CBN 1/6P 10K
376	R215	5232-332J16P	RES, CBN 1/6P 3.3K
377	R216	5232-472J16P	RES, CBN 1/6P 4.7K
378	R217	5232-153J16P	RES, CBN 1/6P 15K (BK)
378B	R217	5232-273J16P	RES, CBN 1/6P 27K (I) (IB) (BB)
377	R218	5232-472J16P	RES, CBN 1/6P 4.7K
368	R219	5232-104J16P	RES, CBN 1/6P 100K
366	R220	5232-154J16P	RES, CBN 1/6P 150K
374	R221	5232-102J16P	RES, CBN 1/6P 1K
377	R222	5232-472J16P	RES, CBN 1/6P 4.7K
367	R223	5232-104J16P	RES, CBN 1/6P 100K
377	R224	5232-472J16P	RES, CBN 1/6P 4.7K (BK)
054B	R224	5232-222J16P	RES, CBN 1/6P 22K (I) (IB) (BB)
397	R251	5135-334522	RES, CBN 1/2P 330K
398	R252	5135-104522	RES, CBN 1/2P 100K
401	R253	5232-103J16P	RES, CBN 1/6P 10K
399	R254	5135-102522	RES, CBN 1/2P 1K
401	R255	5232-103J16P	RES, CBN 1/6P 10K
402	R256	5232-223J16P	RES, CBN 1/6P 22K
403	R257	5232-820J16P	RES, CBN 1/6P 82
405	R258	5232-183J16P	RES, CBN 1/6P 18K (BK)
405B	R258	5232-223J16P	RES, CBN 1/6p 22K (I) (IB) (BB)
404	R259	5135-152522	RES, CBN 1/2P 1.5K
406	R260	5135-103522	RES, CBN 1/2P 10K
407	R261	5232-471J16P	RES, CBN 1/6P 470
435	R301	5135-105522	RES, CBN 1/2P 1M
435	R302	5135-105522	RES, CBN 1/2P 1M
427	R303	5232-104J16P	RES, CBN 1/6P 100K (BK)
427B	R303	5232-274J16P	RES, CBN 1/6P 270K (I) (IB) (BB)
427	R304	5232-104J16P	RES, CBN 1/6P 100K (BK)
427B	R304	5232-274J16P	RES, CBN 1/6P 270K (I) (IB) (BB)
428	R305	5232-753J16P	RES, CBN 1/6P 75K
428	R306	5232-753J16P	RES, CBN 1/6P 75K
429	R307	5232-164J16P	RES, CBN 1/6P 160K (BK)
429B	R307	5232-184J16P	RES, CBN 1/6P 180K (I) (IB) (BB)
429	R308	5232-164J16P	RES, CBN 1/6P 160K (BK)
429B	R308	5232-184J16P	RES, CBN 1/6P 180K (I) (IB) (BB)
430	R309	5232-182J16P	RES, CBN 1/6P 1.8K
430	R310	5232-182J16P	RES, CBN 1/6P 1.8K
431	R311	5232-103J16P	RES, CBN 1/6P 10K
431	R312	5232-103J16P	RES, CBN 1/6P 10K
431	R313	5232-103J16P	RES, CBN 1/6P 10K
431	R314	5232-103J16P	RES, CBN 1/6P 10K
432	R315	5232-472J16P	RES, CBN 1/6P 4.7K
431	R316	5232-103J16P	RES, CBN 1/6P 10K
465	R701	5232-103J16P	RES, CBN 1/6P 10K
465	R702	5232-103J16P	RES, CBN 1/6P 10K
466	R703	5232-473J16P	RES, CBN 1/6P 47K
467	R704	5232-222J16P	RES, CBN 1/6P 2.2K
471	R705	5135-102522	RES, CBN 1/2P 1K
471	R706	5135-102522	RES, CBN 1/2P 1K
465	R707	5232-103J16P	RES, CBN 1/6P 10K

Ser. No.	Ref. No.	Part No.	Description
468	R708	5232-102J16P	RES, CBN 1/6P 1K
470	R709	5232-104J16P	RES, CBN 1/6P 100K
467	R710	5232-222J16P	RES, CBN 1/6P 2.2K
467	R711	5232-222J16P	RES, CBN 1/6P 2.2K
467	R712	5232-222J16P	RES, CBN 1/6P 2.2K
467	R713	5232-222J16P	RES, CBN 1/6P 2.2K
469	R714	5232-472J16P	RES, CBN 1/6P 4.7K
472	R715	5232-273J16P	RES, CBN 1/6P 27K
473	R716	5135-103522	RES, CBN 1/2P 10K
473	R717	5135-103522	RES, CBN 1/2P 10K
465	R718	5232-103J16P	RES, CBN 1/6P 10K
471	R720	5135-102522	RES, CBN 1/2P 1K
473	R726	5135-103522	RES, CBN 1/2P 10K
477	R727	5232-473J16P	RES, CBN 1/6P 47K
476	R728	5135-223522	RES, CBN 1/2P 22K
473	R729	5135-103522	RES, CBN 1/2P 10K
464	R730	5232-223J16P	RES, CBN 1/6P 22K
465	R732	5232-103J16P	RES, CBN 1/6P 10K
478	R733	5135-104522	RES, CBN 1/2P 100K
465	R734	5232-103J16P	RES, CBN 1/6P 10K
470	R739	5232-104J16P	RES, CBN 1/6P 100K
470	R740	5232-104J16P	RES, CBN 1/6P 100K
470	R744	5232-104J16P	RES, CBN 1/6P 100K
472	R745	5232-273J16P	RES, CBN 1/6P 27K
483	R761	5135-101522	RES, CBN 1/2P 100
484	R762	5232-332J16P	RES, CBN 1/6P 3.3K
465	R764	5232-103J16P	RES, CBN 1/6P 10K
482	R766	5135-332522	RES, CBN 1/2P 3.3K
474	R768	5135-472522	RES, CBN 1/2P 4.7K
482	R769	5135-332522	RES, CBN 1/2P 3.3K
819	R831	5232-224J16P	RES, CBN 1/6P 220K
815	R832	5232-104J16P	RES, CBN 1/6P 100K
821	R833	5232-274J16P	RES, CBN 1/6P 270K
819	R834	5232-224J16P	RES, CBN 1/6P 220K
818	R835	5232-223J16P	RES, CBN 1/6P 22K
818	R836	5232-223J16P	RES, CBN 1/6P 22K
820	R841	5135-472522	RES, CBN 1/2P 4.7K
815	R842	5232-104J16P	RES, CBN 1/6P 100K
817	R843	5232-473J16P	RES, CBN 1/6P 47K
817	R844	5232-473J16P	RES, CBN 1/6P 47K
812	R845	5135-104522	RES, CBN 1/2P 100K
815	R846	5232-104J16P	RES, CBN 1/6P 100K
817	R847	5232-473J16P	RES, CBN 1/6P 47K
813	R848	5135-105522	RES, CBN 1/2P 1M
812	R849	5135-104522	RES, CBN 1/2P 100K
816	R850	5232-105J16P	RES, CBN 1/6P 1M
812	R851	5135-104522	RES, CBN 1/2P 100K
816	R852	5232-105J16P	RES, CBN 1/6P 1M
814	R853	5135-104522	RES, CBN 1/2P 100K
819	R854	5232-224J16P	RES, CBN 1/6P 220K
819	R855	5232-224J16P	RES, CBN 1/6P 220K
819	R856	5232-224J16P	RES, CBN 1/6P 220K
807	R866	5232-100J16P	RES, CBN 1/6P 10
		INTEGRATED CIRCUITS	
351	IC201	5653-LA1266	IC, LINEAR
411	IC301	5653-LA3410	IC, LINEAR
442	IC702	5654-TC9227P	IC, DIGITAL
801	IC802	5654-LC7818	IC, DIGITAL
802	IC803	5654-TC4011BP	IC, DIGITAL
802	IC804	5654-TC4011BP	IC, DIGITAL
		TRANSISTORS	
501	Q51	5612-1375	XISTOR, PNP A
502	Q52	5613-3311A (R)	XISTOR, NPN R
503	Q53	5613-UN4212	XISTOR, NPN R
504	Q54	5612-647 (C)	XISTOR, PNP A
502	Q55	5613-3311A (R)	XISTOR, NPN R
352	Q201	5613-2058 (N) OR (P)	XISTOR, NPN R
352	Q202	5613-2058 (N) OR (P)	XISTOR, NPN R
412	Q301	5614-1450 (T)	XISTOR, NPN A
412	Q302	5614-1450 (T)	XISTOR, NPN A
413	Q303	5616-2SK364BL	FET, N-CH
413	Q304	5616-2SK364BL	FET, N-CH
443	Q701	5613-2240 (BL)	XISTOR, NPN R
444	Q702	5613-3311A (R)	XISTOR, NPN R
446	Q704	5611-UN4112	XISTOR, PNP R
446	Q705	5611-UN4112	XISTOR, PNP R
445	Q706	5613-UN4212	XISTOR, NPN R
444	Q707	5613-3311A (R)	XISTOR, NPN R
446	Q708	5611-UN4112	XISTOR, PNP R
444	Q710	5613-3311A (R)	XISTOR, NPN R
446	Q711	5611-UN4112	XISTOR, PNP R
448	Q712	5611-1309A (R)	XISTOR, PNP R
445	Q713	5613-UN4212	XISTOR, NPN R
498	Q714	5613-UN4213	XISTOR, NPN R
445	Q715	5613-UN4212	XISTOR, NPN R
445	Q716	5613-UN4212	XISTOR, NPN R
445	Q720	5613-UN4212	XISTOR, NPN R
822	Q810	5611-1309A (R)	XISTOR, PNP R
803	Q811	5616-2SK364BL	FET, N-CH
803	Q812	5616-2SK364BL	FET, N-CH
803	Q813	5616-2SK364BL	FET, N-CH
803	Q814	5616-2SK364BL	FET, N-CH
803	Q815	5616-2SK364BL	FET, N-CH
803	Q816	5616-2SK364BL	FET, N-CH
804	Q817	5611-UN4112	XISTOR, PNP R
804	Q818	5611-UN4112	XISTOR, PNP R
804	Q819	5611-UN4112	XISTOR, PNP R
		DIODES	
506	D52	5635-HZ12C2L	DIODE, ZENER
507	D53	5635-HZ6B1L	DIODE, ZENER
508	D54	5635-HZ5B2	DIODE, ZENER
509	D55	5635-HZ24-1L	DIODE, ZENER
416	D101	5631-1SS133	DIODE, DET
416	D102	5631-1SS133	DIODE, DET
416	D301	5631-1SS133	DIODE, DET
416	D302	5631-1SS133	DIODE, DET
450	D712	5631-1SS133	DIODE, DET
450	D714	5631-1SS133	DIODE, DET
450	D715	5631-1SS133	DIODE, DET
450	D716	5631-1SS133	DIODE, DET
452	D717	5631-1S2473	DIODE, DET
450	D718	5631-1SS133	DIODE, DET
452	D720	5631-1S2473	DIODE, DET
856	D722	5631-1S2473	DIODE, DET
856	D724	5631-1S2473	DIODE, DET
856	D726	5631-1S2473	DIODE, DET
805	D728	5631-1S2473	DIODE, DET
450	D729	5631-1SS133	DIODE, DET
856	D730	5631-1S2473	DIODE, DET
452	D731	5631-1S2473	DIODE, DET
805	D801	5631-1S2473	DIODE, DET
805	D802	5631-1S2473	DIODE, DET
806	D807	5631-1SS133	DIODE, DET
805	D809	5631-1S2473	DIODE, DET
806	D811	5631-1SS133	DIODE, DET
806	D812	5631-1SS133	DIODE, DET
806	D813	5631-1SS133	DIODE, DET
806	D815	5631-1SS133	DIODE, DET
806	D816	5631-1SS133	DIODE, DET
806	D817	5631-1SS133	DIODE, DET
806	D818	5631-1SS133	DIODE, DET
806	D819	5631-1SS133	DIODE, DET
806	D820	5631-1SS133	DIODE, DET
		COIL	
358	L201	5995-2R2J69	COIL W/CORE
		TRANSFORMERS	
357	T201	5572-10201	DISCRI 7
384	T251	5552-00712	IFT, AM 7
		CONTROLS	
354	VR201	5101-50301934	RES, SEMI FIX 50K
415	VR301	5101-10401934	RES, SEMI FIX 100K

Ser. No.	Ref. No.	Part No.	Description
		MISCELLANEOUS	
383	CB251	6111-02401	RF BLOCK
355	CF201	5671-7120A	FILTER, CER S (BK)
355B	CF201	5671-7141A	FILTER, CER S (I) (IB) (BB)
355	CF202	5671-7120A	FILTER, CER S (BK)
356B	CF202	5671-7142A	FILTER, CER S (I) (IB) (BB)
356	CF203	5671-012A	FILTER, CER S (BK)
356B	CF203	5671-7142A	FILTER, CER S (I) (IB) (BB)
386	CF251	5671-7137C	FILTER, CER S
385	CF252	5671-0159	FILTER, CER S
941	CN12	4443-060185	CONNECTOR
939	CN102	4443-0201140	CONNECTOR
946	CN105	4443-0301140	CONNECTOR
940	CN501	4443-030185	CONNECTOR
539	CN101A	4443-05501019	CONNECTOR
825	CN601B	4443-01801012	CONNECTOR
826	CN602B	4443-01801007	CONNECTOR
827	CN802B	4443-01801016	CONNECTOR
867	CN804B	4443-05501013	CONNECTOR
414	CX301	5693-CSB456F1	OSC, CER
935	CW106	4163-0150039	CONNECTOR W/W
936	CW107	4163-0145039	CONNECTOR W/W
936	CW108	4163-0145039	CONNECTOR W/W
321	⚠FE101	6114-00701	FM TUNER (BK)
321B	⚠FE101	6114-00601	FM TUNER (I) (IB) (BB)
959	JL103	4242-R0103181	JUMPER LEAD
545	JL109	4132-R0100101	CORD, 2C
546	JL110	4132-R0100121	CORD, 2C
330	LUG1	4211-4	LUG
052B	LPF101	5214-78	LC COMPOSITE (I) (IB) (BB)
056B	LPF301	5214-86	LC COMPOSITE (I) (IB) (BB)
829	RC801	5212-223J0503	R COMPOSITE
547	⚠TM101	4214-164	TERMINAL
051B	TM102	4214-167	TERMINAL (I) (IB) (BB)
541	TP1	4214-132	TERMINAL
541	TP2	4214-132	TERMINAL

PCB-2 EQUALIZER P.C. BOARD

		CAPACITORS	
576	C601	5345-106C0951	CAP, MINI ELE 10μ/16V
576	C602	5345-106C0951	CAP, MINI ELE 10μ/16V
582	C603	5359-1215851	CAP, PPP 120p
582	C604	5359-1215851	CAP, PPP 120p
575	C605	5345-227A0951	CAP, MINI ELE 220μ/6.3V
575	C606	5345-227A0951	CAP, MINI ELE 220μ/6.3V
583	C607	5359-5625851	CAP, PPP 5600p
583	C608	5359-5625851	CAP, PPP 5600p
584	C609	5359-2025851	CAP, PPP 2000p
584	C610	5359-2025851	CAP, PPP 2000p
576	C611	5345-106C0951	CAP, MINI ELE 10μ/16V
576	C612	5345-106C0951	CAP, MINI ELE 10μ/16V
577	C613	5345-227D041	CAP, MINI ELE 220μ/25V
577	C614	5345-227D041	CAP, MINI ELE 220μ/25V
578	C615	5345-107D041	CAP, MINI ELE 100μ/25V
578	C616	5345-107D041	CAP, MINI ELE 100μ/25V
588	C617	5353-040934	CAP, MCA 4p (BK)
588B	C617	5353-100934	CAP, MCA 10p (I) (IB) (BB)
588	C618	5353-040934	CAP, MCA 4p (BK)
588B	C618	5353-100934	CAP, MCA 10p (I) (IB) (BB)
585	C619	5359-1825851	CAP, PPP 1800p (BK)
585	C619	5359-1225851	CAP, PPP 1200p (I) (IB) (BB)
585	C620	5359-1825851	CAP, PPP 1800p (BK)
585B	C620	5359-1225851	CAP, PPP 1200p (I) (IB) (BB)
060B	C621	5359-2215851	CAP, PPP 220p (I) (IB) (BB)
060B	C622	5359-2215851	CAP, PPP 220p (I) (IB) (BB)
		RESISTORS	
591	R601	5135-823522	RES, CBN 1/2P 82K
591	R602	5135-823522	RES, CBN 1/2P 82K
592	R603	5135-124522	RES, CBN 1/2P 120K
592	R604	5135-124522	RES, CBN 1/2P 120K
593	R605	5135-221522	RES, CBN 1/2P 220 (BK)
593B	R605	5135-102522	RES, CBN 1/2P 1K (I) (IB) (BB)
593	R606	5135-221522	RES, CBN 1/2P 220 (BK)
593B	R606	5135-102522	RES, CBN 1/2P 1K (I) (IB) (BB)
594	R607	5135-122522	RES, CBN 1/2P 1.2K
594	R608	5135-122522	RES, CBN 1/2P 1.2K
595	R609	5135-220522	RES, CBN 1/2P 22
595	R610	5135-220522	RES, CBN 1/2P 22
594	R611	5135-122522	RES, CBN 1/2P 1.2K
594	R612	5135-122522	RES, CBN 1/2P 1.2K
596	R613	5135-473522	RES, CBN 1/2P 47K
596	R614	5135-473522	RES, CBN 1/2P 47K
597	R615	5135-820522	RES, CBN 1/2P 82
597	R616	5135-820522	RES, CBN 1/2P 82
597	R617	5135-820522	RES, CBN 1/2P 82
597	R618	5135-820522	RES, CBN 1/2P 82
059B	R619	5232-102J16P	RES, CBN 1/6P 1K (I) (IB) (BB)
059B	R620	5232-102J16P	RES, CBN 1/6P 1K (I) (IB) (BB)
599	R621	5135-821522	RES, CBN 1/2P 820
599	R622	5135-821522	RES, CBN 1/2P 820
600	R623	5135-393522	RES, CBN 1/2P 39K
600	R624	5135-393522	RES, CBN 1/2P 39K
601	R625	5135-564522	RES, CBN 1/2P 560K
601	R626	5135-564522	RES, CBN 1/2P 560K
602	R627	5135-334522	RES, CBN 1/2P 330K
602	R628	5135-334522	RES, CBN 1/2P 330K
603	R629	5135-102522	RES, CBN 1/2P 1K
603	R630	5135-102522	RES, CBN 1/2P 1K
604	R631	5135-333522	RES, CBN 1/2P 33K
604	R632	5135-333522	RES, CBN 1/2P 33K
603	R633	5135-102522	RES, CBN 1/2P 1K
603	R634	5135-102522	RES, CBN 1/2P 1K
605	R635	5135-222522	RES, CBN 1/2P 2.2K
605	R636	5135-222522	RES, CBN 1/2P 2.2K
606	R637	5135-472522	RES, CBN 1/2P 4.7K
606	R638	5135-472522	RES, CBN 1/2P 4.7K
607	R639	5135-220522	RES, CBN 1/2P 22
607	R640	5135-220522	RES, CBN 1/2P 22
610	⚠R641	5102-1814715	RES, FUSE 180
610	⚠R642	5102-1814715	RES, FUSE 180
608	R643	5232-105J16P	RES, CBN 1/6P 1M
608	R644	5232-105J16P	RES, CBN 1/6P 1M
611	⚠R651	5102-1005116	RES, FUSE 10
611	⚠R652	5102-1005116	RES, FUSE 10
603	R655	5135-102522	RES, CBN 1/2P 1K
603	R656	5135-102522	RES, CBN 1/2P 1K
603	R657	5135-102522	RES, CBN 1/2P 1K
603	R658	5135-102522	RES, CBN 1/2P 1K
605	R681	5135-222522	RES, CBN 1/2P 2.2K
605	R682	5135-222522	RES, CBN 1/2P 2.2K
		TRANSISTORS	
561	Q601	5613-2320L (F)	XISTOR, NPN R
561	Q602	5613-2320L (F)	XISTOR, NPN R
563	Q603	5611-999L (F)	XISTOR, PNP R
563	Q604	5611-999L (F)	XISTOR, PNP R
564	Q605	5611-999 (F)	XISTOR, PNP R
564	Q606	5611-999 (F)	XISTOR, PNP R
562	Q607	5613-2320 (F)	XISTOR, NPN R
562	Q608	5613-2320 (F)	XISTOR, NPN R
562	Q609	5613-2320 (F)	XISTOR, NPN R
562	Q610	5613-2320 (F)	XISTOR, NPN R
562	Q611	5613-2320 (F)	XISTOR, NPN R
562	Q612	5613-2320 (F)	XISTOR, NPN R
565	Q613	5612-647 (C)	XISTOR, PNP A
566	Q614	5614-667 (C)	XISTOR, NPN A
		DIODES	
569	D601	5635-HZ15-2L	DIODE, ZENER
569	D602	5635-HZ15-2L	DIODE, ZENER
570	D603	5631-1SS133	DIODE, DET
570	D604	5631-1SS133	DIODE, DET
		MISCELLANEOUS	
938	CN402	4443-0201141	CONNECTOR
613	CN601A	4443-01701012	CONNECTOR
614	CN602A	4443-01701007	CONNECTOR
912	⚠J2	4484-46	PIN JACK, 4P
914	⚠J3	4482-0133	PIN JACK, 2P

Ser. No.	Ref. No.	Part No.	Description
PCB-3 MONITOR P.C. BOARD			
		CAPACITORS	
838	C811	5354-104593	CAP, MYL .1 μ
838	C813	5354-104593	CAP, MYL .1 μ
049B	C817	5359-2215851	CAP, PPP 220p (1) (IB) (BB)
049B	C818	5359-2215851	CAP, PPP 220p (1) (IB) (BB)
		RESISTORS	
845B	R859	5232-102J16P	RES, CBN 1/6P 1K (1) (IB) (BB)
845B	R860	5232-102J16P	RES, CBN 1/6P 1K (1) (IB) (BB)
845B	R869	5232-102J16P	RES, CBN 1/6P 1K (1) (IB) (BB)
845B	R870	5232-102J16P	RES, CBN 1/6P 1K (1) (IB) (BB)
842	R878	5135-105522	RES, CBN 1/2P 1M
850	R882	5232-105J16P	RES, CBN 1/6P 1M
847	R883	5232-104J16P	RES, CBN 1/6P 100K
845	R887	5232-102J16P	RES, CBN 1/6P 1K
845	R888	5232-102J16P	RES, CBN 1/6P 1K
845	R889	5232-102J16P	RES, CBN 1/6P 1K
845	R890	5232-102J16P	RES, CBN 1/6P 1K
		TRANSISTORS	
833	Q821	5616-2SK364BL	FET, N-CH
833	Q822	5616-2SK364BL	FET, N-CH
833	Q825	5616-2SK364BL	FET, N-CH
833	Q826	5616-2SK364BL	FET, N-CH
834	Q830	5611-UN4112	XISTOR, PNP R
		DIODES	
835	D861	5631-1S2473	DIODE, DET
835	D862	5631-1S2473	DIODE, DET
835	D865	5631-1S2473	DIODE, DET
835	D866	5631-1S2473	DIODE, DET
836	D883	5631-1SS133	DIODE, DET
836	D884	5631-1SS133	DIODE, DET
		MISCELLANEOUS	
849	CN802A	4443-01701016	CONNECTOR
913	⚠J4	4484-46	PIN JACK, 4P
913	⚠J5	4484-46	PIN JACK, 4P
PCB-4 SUB WOOFER P.C. BOARD			
		CAPACITORS	
058B	C825	5359-2215851	CAP, PPP 220p (1) (IB) (BB)
058B	C826	5359-2215851	CAP, PPP 220p (1) (IB) (BB)
		RESISTORS	
479	R751	5135-470522	RES, CBN 1/2P 47
480	R752	5135-473522	RES, CBN 1/2P 47K
481	R753	5135-271522	RES, CBN 1/2P 270
486	R771	5135-102522	RES, CBN 1/2P 1K
		TRANSISTOR	
447	Q751	5611-UN411L	XISTOR, PNP R
		MISCELLANEOUS	
945	CN104	4443-030185	CONNECTOR
551	J101	4451-00184	JACK, 1P
551	J102	4451-00184	JACK, 1P
552	⚠J103	4489-00705002	PIN JACK, MLT
556	PH701	5624-ON3161 (R	PHOTO COUPLER
PCB-5 MAIN P.C. BOARD			
		CAPACITORS	
766	C3	5362-103048	CAP, CER .01 μ
766	C4	5362-103048	CAP, CER .01 μ
765	C5	5341-478W0955	CAP, ELE 4700 μ/42V
765	C6	5341-478W0955	CAP, ELE 4700 μ/42V
748	C21	5345-106F041	CAP, MINI ELE 10 μ/50V
748	C22	5345-106F041	CAP, MINI ELE 10 μ/50V
749	C23	5345-107B041	CAP, MINI ELE 100 μ/10V
750	C24	5345-105F041	CAP, MINI ELE 1 μ/50V
751	C25	5354-683J1HM	CAP, MYL .068 μ
751	C26	5354-683J1HM	CAP, MYL .068 μ
746	C27	5345-105F0951	CAP, MINI ELE 1 μ/50V
696	C401	5345-476B0951	CAP, MINI ELE 47 μ/10V
696	C402	5345-476B0951	CAP, MINI ELE 47 μ/10V
699	C403	5359-6805851	CAP, PPP 68p
699	C404	5359-6805851	CAP, PPP 68p
698	C405	5345-106C0951	CAP, MINI ELE 10 μ/16V
698	C406	5345-106C0951	CAP, MINI ELE 10 μ/16V
700	C407	5353-050934	CAP, MCA 5p
700	C408	5353-050934	CAP, MCA 5p
697	C409	5345-477A0952	CAP, MINI ELE 470 μ/6.3V
697	C410	5345-477A0952	CAP, MINI ELE 470 μ/6.3V
703	C411	5359-1015851	CAP, PPP 100p
703	C412	5359-1015851	CAP, PPP 100p
704	C413	5345-476F041	CAP, MINI ELE 47 μ/50V
704	C414	5345-476F041	CAP, MINI ELE 47 μ/50V
704	C415	5345-476F041	CAP, MINI ELE 47 μ/50V
704	C416	5345-476F041	CAP, MINI ELE 47 μ/50V
701	C417	5354-104593	CAP, MYL .1 μ
701	C418	5354-104593	CAP, MYL .1 μ
701	C419	5354-104593	CAP, MYL .1 μ
701	C420	5354-104593	CAP, MYL .1 μ
705	C421	5345-475D0951	CAP, MINI ELE 4.7 μ/25V
705	C422	5345-475D0951	CAP, MINI ELE 4.7 μ/25V
043B	C438	5354-103K1HM	CAP, MYL .01 μ (1) (IB) (BB)
		RESISTORS	
753	R21	5135-471522	RES, CBN 1/2P 470
754	R22	5135-392522	RES, CBN 1/2P 3.9K
755	R23	5135-332522	RES, CBN 1/2P 3.3K
756	R24	5135-472522	RES, CBN 1/2P 4.7K
757	R25	5135-104522	RES, CBN 1/2P 100K
758	R26	5135-683522	RES, CBN 1/2P 68K
759	R27	5135-333522	RES, CBN 1/2P 33K
762	R33	5135-681522	RES, CBN 1/2P 680
762	R34	5135-681522	RES, CBN 1/2P 680
763	R35	5135-821522	RES, CBN 1/2P 820
763	R36	5135-821522	RES, CBN 1/2P 820
752	R37	5135-331522	RES, CBN 1/2P 330
752	R38	5135-331522	RES, CBN 1/2P 330
756	R39	5135-472522	RES, CBN 1/2P 4.7K
756	R40	5135-472522	RES, CBN 1/2P 4.7K
757	R41	5135-104522	RES, CBN 1/2P 100K
758	R42	5135-683522	RES, CBN 1/2P 68K
756	R43	5135-472522	RES, CBN 1/2P 4.7K
756	R44	5135-472522	RES, CBN 1/2P 4.7K
767	R45	5135-222522	RES, CBN 1/2P 2.2K
711	R401	5135-333522	RES, CBN 1/2P 33K
711	R402	5135-333522	RES, CBN 1/2P 33K
712	R403	5135-331522	RES, CBN 1/2P 330 (BK)
712B	R403	5135-102522	RES, CBN 1/2P 1K (1) (IB) (BB)
712	R404	5135-331522	RES, CBN 1/2P 330 (BK)
712B	R404	5135-102522	RES, CBN 1/2P 1K (1) (IB) (BB)
713	R405	5135-561522	RES, CBN 1/2P 560
713	R406	5135-561522	RES, CBN 1/2P 560
713	R407	5135-561522	RES, CBN 1/2P 560
713	R408	5135-561522	RES, CBN 1/2P 560
714	R409	5135-152522	RES, CBN 1/2P 1.5K
714	R410	5135-152522	RES, CBN 1/2P 1.5K
714	R411	5135-152522	RES, CBN 1/2P 1.5K
714	R412	5135-152522	RES, CBN 1/2P 1.5K
715	R413	5135-182522	RES, CBN 1/2P 1.8K
715	R414	5135-182522	RES, CBN 1/2P 1.8K
716	R415	5135-561522	RES, CBN 1/2P 560
716	R416	5135-561522	RES, CBN 1/2P 560
716	R417	5135-561522	RES, CBN 1/2P 560
716	R418	5135-561522	RES, CBN 1/2P 560
716	R419	5135-561522	RES, CBN 1/2P 560
716	R420	5135-561522	RES, CBN 1/2P 560
716	R421	5135-561522	RES, CBN 1/2P 560
716	R422	5135-561522	RES, CBN 1/2P 560
716	R423	5135-561522	RES, CBN 1/2P 560
716	R424	5135-561522	RES, CBN 1/2P 560
717	⚠R425	5102-5605116	RES, FUSE 56
717	⚠R426	5102-5605116	RES, FUSE 56
717	⚠R427	5102-5605116	RES, FUSE 56
717	⚠R428	5102-5605116	RES, FUSE 56

Ser. No.	Ref. No.	Part No.	Description
718	R429	5135-223522	RES, CBN 1/2P 22K
718	R430	5135-223522	RES, CBN 1/2P 22K
718	R431	5135-223522	RES, CBN 1/2P 22K
718	R432	5135-223522	RES, CBN 1/2P 22K
720	R433	5135-152522	RES, CBN 1/2P 1.5K
720	R434	5135-152522	RES, CBN 1/2P 1.5K
719	R435	5135-271522	RES, CBN 1/2P 270
719	R436	5135-271522	RES, CBN 1/2P 270
721	⚠R437	5102-8205116	RES, FUSE 82
721	⚠R438	5102-8205116	RES, FUSE 82
721	⚠R439	5102-8205116	RES, FUSE 82
721	⚠R440	5102-8205116	RES, FUSE 82
722	R441	5135-820522	RES, CBN 1/2P 82
722	R442	5135-820522	RES, CBN 1/2P 82
730	R445	5275-S040JR27	RES, CEM 5P .27
730	R446	5275-S040JR27	RES, CEM 5P .27
730	R447	5275-S040JR27	RES, CEM 5P .27
730	R448	5275-S040JR27	RES, CEM 5P .27
726	R449	5135-100522	RES, CBN 1/2P 10
726	R450	5135-100522	RES, CBN 1/2P 10
731	R451	5171-100571	RES, MTL 1P 10
731	R452	5171-100571	RES, MTL 1P 10
724	R455	5135-271522	RES, CBN 1/2P 270
724	R456	5135-271522	RES, CBN 1/2P 270
725	R457	5135-103522	RES, CBN 1/2P 10K
725	R458	5135-103522	RES, CBN 1/2P 10K
723	R459	5135-333522	RES, CBN 1/2P 33K
723	R460	5135-333522	RES, CBN 1/2P 33K
723	R465	5135-333522	RES, CBN 1/2P 33K
723	R466	5135-333522	RES, CBN 1/2P 33K
068B	⚠R467	5102-4R75713	RES, FUSE 4.7 J IB BB
068B	⚠R468	5102-4R75713	RES, FUSE 4.7 J IB BB
068B	⚠R469	5102-4R75713	RES, FUSE 4.7 J IB BB
068B	⚠R470	5102-4R75713	RES, FUSE 4.7 J IB BB
		TRANSISTORS	
741	Q21	5611-1309A(R)	XISTOR, PNP R
742	Q22	5613-3311A (R)	XISTOR, NPN R
743	Q23	5613-2240 (BL)	XISTOR, NPN R
744	Q24	5611-970 (BL)	XISTOR, PNP R
743	Q27	5613-2240 (BL)	XISTOR, NPN R
743	Q28	5613-2240 (BL)	XISTOR, NPN R
744	Q29	5611-970 (BL)	XISTOR, PNP R
683	Q401	5611-970 (BL)	XISTOR, PNP R
683	Q402	5611-970 (BL)	XISTOR, PNP R
683	Q403	5611-970 (BL)	XISTOR, PNP R
683	Q404	5611-970 (BL)	XISTOR, PNP R
681	Q405	5613-2240 (BL)	XISTOR, NPN R
681	Q406	5613-2240 (BL)	XISTOR, NPN R
681	Q407	5613-2240 (BL)	XISTOR, NPN R
681	Q408	5613-2240 (BL)	XISTOR, NPN R
686	Q409	5612-646A (C)	XISTOR, PNP A
686	Q410	5612-646A (C)	XISTOR, PNP A
685	Q411	5614-666A (C)	XISTOR, NPN A
685	Q412	5614-666A (C)	XISTOR, NPN A
687	Q413	5613-945 (K)	XISTOR, NPN R
687	Q414	5613-945 (K)	XISTOR, NPN R
688	Q415	5614-667A (C)	XISTOR, NPN A
688	Q416	5614-667A (C)	XISTOR, NPN A
689	Q417	5612-647A (C)	XISTOR, PNP A
689	Q418	5612-647A (C)	XISTOR, PNP A
690	Q419	5613-3180 (O)	XISTOR, NPN R
690	Q420	5613-3180 (O)	XISTOR, NPN R
692	Q421	5611-1263 (O)	XISTOR, PNP R
692	Q422	5611-1263 (O)	XISTOR, PNP R
684	Q423	5611-999 (F)	XISTOR, PNP R
684	Q424	5611-999 (F)	XISTOR, PNP R
684	Q425	5611-999 (F)	XISTOR, PNP R
684	Q426	5611-999 (F)	XISTOR, PNP R
		DIODES	
764	D1	5685-RBV-602	SILICON, BRIG
745	D21	5636-1S2471	DIODE, SWITCH
747	D22	5635-HZ6B1L	DIODE, ZENER
694	D401	5631-1S2473	DIODE, DET
694	D402	5631-1S2473	DIODE, DET

Ser. No.	Ref. No.	Part No.	Description
		COILS	
707	L401	5991-7165	SPRING COIL
707	L402	5991-7165	SPRING COIL
		CONTROLS	
729	VR401	5101-50101930	RES, SEMI FIX 500
729	VR402	5101-50101930	RES, SEMI FIX 500
		MISCELLANEOUS	
921	CW401	4163-S0204351	CONNECTOR W/W
923	CW403	4163-0135027	CONNECTOR W/W
924	CW404	4163-0135025	CONNECTOR W/W
929	CW410	4163-0125024	CONNECTOR W/W
925	CW413	4163-0122024	CONNECTOR W/W
926	CW414	4163-0122026	CONNECTOR W/W
966	JL420	4242-R0103141	JUMPER LEAD
770	TM415	4214-11013	TERMINAL
770	TM415L	4214-11013	TERMINAL
770	TM415R	4214-11013	TERMINAL
769	TP401	4214-132	TERMINAL
769	TP402	4214-132	TERMINAL
769	TP403	4214-132	TERMINAL
769	TP404	4214-132	TERMINAL

PCB-6 TONE CONTROL P.C. BOARD

		CAPACITORS	
631	C501	5345-226C0951	CAP, MINI ELE 22 μ/16V
631	C502	5345-226C0951	CAP, MINI ELE 22 μ/16V
629	C503	5345-476C0951	CAP, MINI ELE 47 μ/16V
629	C504	5345-476C0951	CAP, MINI ELE 47 μ/16V
632	C505	5345-225F0951	CAP, MINI ELE 2.2 μ/50V
632	C506	5345-225F0951	CAP, MINI ELE 2.2 μ/50V
636	C507	5354-273J1HM	CAP, MYL .027 μ
636	C508	5354-273J1HM	CAP, MYL .027 μ
635	C509	5354-154593	CAP, MYL .15 μ
635	C510	5354-154593	CAP, MYL .15 μ
638	C511	5354-682J1HM	CAP, MYL 6800p
638	C512	5354-682J1HM	CAP, MYL 6800p
637	C513	5354-393J1HM	CAP, MYL .039 μ
637	C514	5354-393J1HM	CAP, MYL .039 μ
630	C515	5345-226C0951	CAP, MINI ELE 22 μ/16V
630	C516	5345-226C0951	CAP, MINI ELE 22 μ/16V
640	C517	5353-020934	CAP, MCA 2p
640	C518	5353-020934	CAP, MCA 2p
041B	C521	5354-103K1HM	CAP, MYL .01 μ J IB BB
041B	C522	5354-103K1HM	CAP, MYL .01 μ J IB BB
067B	C523	5354-103K1HM	CAP, MYL .01 μ J IB BB
643	C563	5359-1015851	CAP, PPP 100p
643	C564	5359-1015851	CAP, PPP 100p
633	C581	5345-337D045	CAP, MINI ELE 330 μ/25V
633	C582	5345-337D045	CAP, MINI ELE 330 μ/25V
633	C583	5345-337D045	CAP, MINI ELE 330 μ/25V
633	C584	5345-337D045	CAP, MINI ELE 330 μ/25V
		RESISTORS	
651	R501	5135-154522	RES, CBN 1/2P 150K
651	R502	5135-154522	RES, CBN 1/2P 150K
652	R503	5135-102522	RES, CBN 1/2P 1K
652	R504	5135-102522	RES, CBN 1/2P 1K
653	R505	5135-101522	RES, CBN 1/2P 100
653	R506	5135-101522	RES, CBN 1/2P 100
654	R507	5135-820522	RES, CBN 1/2P 82
654	R508	5135-820522	RES, CBN 1/2P 82
655	R509	5135-274522	RES, CBN 1/2P 270K
655	R510	5135-274522	RES, CBN 1/2P 270K
652	R511	5135-102522	RES, CBN 1/2P 1K
652	R512	5135-102522	RES, CBN 1/2P 1K
658	R513	5135-331522	RES, CBN 1/2P 330
658	R514	5135-331522	RES, CBN 1/2P 330
657	R515	5135-222522	RES, CBN 1/2P 2.2K
657	R516	5135-222522	RES, CBN 1/2P 2.2K
658	R517	5135-331522	RES, CBN 1/2P 330
658	R518	5135-331522	RES, CBN 1/2P 330
659	R519	5135-221522	RES, CBN 1/2P 220
659	R520	5135-221522	RES, CBN 1/2P 220

Ser. No.	Ref. No.	Part No.	Description
660	R521	5135-122522	RES, CBN 1/2P 1.2K
660	R522	5135-122522	RES, CBN 1/2P 1.2K
661	R523	5135-331522	RES, CBN 1/2P 330
661	R524	5135-331522	RES, CBN 1/2P 330
656	R525	5135-473522	RES, CBN 1/2P 47K
656	R526	5135-473522	RES, CBN 1/2P 47K
662	R527	5135-272522	RES, CBN 1/2P 2.7K
662	R528	5135-272522	RES, CBN 1/2P 2.7K
663	R529	5135-153522	RES, CBN 1/2P 15K
663	R530	5135-153522	RES, CBN 1/2P 15K
658	R531	5135-331522	RES, CBN 1/2P 330 BK
042B	R531	5135-102522	RES, CBN 1/2P 1K I IB BB
658	R532	5135-331522	RES, CBN 1/2P 330 BK
042B	R532	5135-102522	RES, CBN 1/2P 1K I IB BB
651	R535	5135-154522	RES, CBN 1/2P 150K
651	R536	5135-154522	RES, CBN 1/2P 150K
656	R547	5135-473522	RES, CBN 1/2P 47K
656	R548	5135-473522	RES, CBN 1/2P 47K
666	R561	5135-105522	RES, CBN 1/2P 1M
666	R562	5135-105522	RES, CBN 1/2P 1M
667	R563	5135-331522	RES, CBN 1/2P 330
667	R564	5135-331522	RES, CBN 1/2P 330
736	R565	5135-224522	RES, CBN 1/2P 220K
735	R566	5135-104522	RES, CBN 1/2P 100K
737	R567	5135-223522	RES, CBN 1/2P 22K
738	R568	5135-153522	RES, CBN 1/2P 15K
739	R571	5135-104522	RES, CBN 1/2P 100K
740	R572	5135-100522	RES, CBN 1/2P 10
740	R573	5135-100522	RES, CBN 1/2P 10
665	⚠R581	5102-1215116	RES, FUSE 120
665	⚠R582	5102-1215116	RES, FUSE 120
664	R583	5135-562522	RES, CBN 1/2P 5.6K
664	R584	5135-562522	RES, CBN 1/2P 5.6K
		TRANSISTORS	
621	Q501	5613-2320L (F)	XISTOR, NPN R
621	Q502	5613-2320L (F)	XISTOR, NPN R
623	Q503	5611-999 (F)	XISTOR, PNP R
623	Q504	5611-999 (F)	XISTOR, PNP R
622	Q505	5611-999L (F)	XISTOR, PNP R
622	Q506	5611-999L (F)	XISTOR, PNP R
649	Q561	5616-2SK364BL	FET, N-CH
649	Q562	5616-2SK364BL	FET, N-CH
650	Q563	5611-UN4112	XISTOR, PNP R
650	Q564	5611-UN4112	XISTOR, PNP R
625	Q581	5614-667 (C)	XISTOR, NPN A
626	Q582	5612-647 (C)	XISTOR, PNP A
		DIODES	
627	D581	5635-HZ15-2L	DIODE, ZENER
627	D582	5635-HZ15-2L	DIODE, ZENER
628	D583	5631-1S2473	DIODE, DET
		CONTROLS	
900	VR501 /502	5113-S0906503	RES, V CBN 16 50K
894	VR505 /506	5113-S0904104	RES, V CBN 16 100K
897	VR507 /508	5113-S0905503	RES, V CBN 16 50K
		MISCELLANEOUS	
942	CN401	4443-0401141	CONNECTOR
933	CW105	4163-S0203141	CONNECTOR W/W
937	CW109	4163-0115039	CONNECTOR W/W
922	CW402	4163-S0202301	CONNECTOR W/W
951	H415	2240-Z031	HOLDER
951	H416A	2240-Z031	HOLDER
951	H417A	2240-Z031	HOLDER
952	H501	2240-Z031	HOLDER
063B	LUG	4211-4	LUG, W-4 I IB BB
647	TM416	4214-11021	TERMINAL

PCB-7 VOLUME P.C. BOARD

		CAPACITORS	
646	C543	5354-823J1HM	CAP, MYL .082 μ
646	C544	5354-823J1HM	CAP, MYL .082 μ
		RESISTORS	
673	R543	5135-273522	RES, CBN 1/2P 27K
673	R544	5135-273522	RES, CBN 1/2P 27K
674	R545	5135-472522	RES, CBN 1/2P 4.7K
674	R546	5135-472522	RES, CBN 1/2P 4.7K
		CONTROLS	
891	VR503 /504	5113-10419122	RES, V CBN 16 100K
		MISCELLANEOUS	
953	H416B	2240-Z031	HOLDER
953	H417B	2240-Z031	HOLDER
960	JL419	4242-R0106121	JUMPER LEAD

PCB-8 PRIMARY P.C. BOARD

		CAPACITOR	
787	⚠C1	5352-S010M103	CAP, MTL .01 μ BK
		RESISTORS	
788	⚠R1	5135-335522	RES, CBN 1/2P 3.3M BK
794	R11	5135-103522	RES, CBN 1/2P 10K
795	R12	5135-332522	RES, CBN 1/2P 3.3K
798	R17	5135-221522	RES, CBN 1/2P 220 BK
798B	R17	5135-222522	RES, CBN 1/2P 2.2K I IB BB
799	R18	5135-472522	RES, CBN 1/2P 4.7K
		TRANSISTORS	
791	Q11	5614-667(C)	XISTOR, NPN A
780	Q14	5613-UN4212	XISTOR, NPN R
		DIODES	
793	D11	5631-1S2473	DIODE, DET BK
793	D16	5631-1S2473	DIODE, DET
		MISCELLANEOUS	
784	⚠FH1	4472-04501	HOLDER, FUSE
785	⚠FH2	4472-04501	HOLDER, FUSE
962	JL12	4242-R0406651	JUMPER LEAD
961	JL13	4242-R0404351	JUMPER LEAD
789	⚠RY1	4331-01702	RELAY, DC BK
048B	⚠S5	4411-00501102	SWITCH, ROTARY I IB BB
916	⚠SO1	4474-02901	SOCKET BK
790	TM1	4214-122	TERMINAL
790	TM2	4214-122	TERMINAL BK
790	TM3	4214-122	TERMINAL
790	TM4	4214-122	TERMINAL
790B	TM5	4214-122	TERMINAL I IB BB

PCB-9 SECONDRY P.C. BOARD

		CAPACITORS	
511	C51	5345-228D045	CAP, MINI ELE 2200 μ/25V
514	C54	5361-473ZF	CAP, CER .047 μ
514	C55	5361-473ZF	CAP, CER .047 μ
047B	C436	5354-103K1HM	CAP, MYL .01 μ I IB BB
047B	C437	5354-103K1HM	CAP, MYL .01 μ I IB BB
		DIODE	
505	⚠D51	5685-S1VB10	SILICON, BRIG
		MISCELLANEOUS	
943	CN100	4443-0201141	CONNECTOR
932	CW102	4163-S0202751	CONNECTOR W/W
930	CW408	4163-0130025	CONNECTOR W/W
927	CW409	4163-0130027	CONNECTOR W/W
536	⚠FH3	4472-04501	HOLDER, FUSE
537	⚠FH4	4472-04501	HOLDER, FUSE
783	⚠S2	4421-02001022	SWITCH, SLIDE BK

PCB-10 HEADPHONE P.C. BOARD

		CAPACITORS	
044B	C431	5359-2215851	CAP, PPP 220p I IB BB
044B	C432	5359-2215851	CAP, PPP 220p I IB BB

Ser. No.	Ref. No.	Part No.	Description
702	C591	5345-107B041	CAP, MINI ELE 100μ/10V
702	C592	5345-107B041	CAP, MINI ELE 100μ/10V
702	C593	5345-107B041	CAP, MINI ELE 100μ/10V
702	C594	5345-107B041	CAP, MINI ELE 100μ/10V
		RESISTORS	
732	R461	5135-102522	RES, CBN 1/2P 1K
732	R462	5135-102522	RES, CBN 1/2P 1K
732	R463	5135-102522	RES, CBN 1/2P 1K
732	R464	5135-102522	RES, CBN 1/2P 1K
733	R591	5135-682522	RES, CBN 1/2P 6.8K
733	R592	5135-682522	RES, CBN 1/2P 6.8K
734	R593	5135-102522	RES, CBN 1/2P 1K
734	R594	5135-102522	RES, CBN 1/2P 1K
		MISCELLANEOUS	
956	CN418	4443-030185	CONNECTOR
911	⚠J1	4451-51501	JACK, 1P
908	S4	4431-A027610	SWITCH, PUSH

PCB-11 SPEAKER SWITCH P.C. BOARD

		CAPACITOR	
046B	C435	5354-103K1HM	CAP, MYL .01μ (I) (IB) (BB)
		MISCELLANEOUS	
965	JL401	4242-044005	JUMPER LEAD
903	S3	4411-00305103	SWITCH, ROTARY
064B	LUG	4211-4	LUG, W-7 (I) (IB) (BB)

PCB-12 SPEAKER TERMINAL P.C. BOARD

		CAPACITORS	
045B	C433	5359-1015851	CAP, PPP 100p (I) (IB) (BB)
045B	C434	5359-1015851	CAP, PPP 100p (I) (IB) (BB)
		MISCELLANEOUS	
066B	LUG	4211-4	LUG, W-11 (I) (IB) (BB)
915	⚠TM402	4214-165	TERMINAL

PCB-14 FRONT P.C. BOARD

		CAPACITORS	
487	C708	5361-223Z921	CAP, CER .022μ
488	C709	5345-476D041	CAP, MINI ELE 47μ/25V
462	C711	5361-300JCH	CAP, CER 30p
462	C712	5361-300JCH	CAP, CER 30p
457	C713	5345-225F041	CAP, MINI ELE 2.2μ/50V
		RESISTORS	
491	R719	5232-104J16P	RES, CBN 1/6P 100K
492	R721	5232-472J16P	RES, CBN 1/6P 4.7K
475	R722	5232-222J16P	RES, CBN 1/6P 2.2K
061B	R723	5232-331J16P	RES, CBN 1/6P 330 (I) (IB) (BB)
475	R725	5232-222J16P	RES, CBN 1/6P 2.2K
491	R735	5232-104J16P	RES, CBN 1/6P 100K
490	R754	5232-102J16P	RES, CBN 1/6P 1K
490	R755	5232-102J16P	RES, CBN 1/6P 1K
490	R756	5232-102J16P	RES, CBN 1/6P 1K
490	R757	5232-102J16P	RES, CBN 1/6P 1K
490	R758	5232-102J16P	RES, CBN 1/6P 1K
490	R759	5232-102J16P	RES, CBN 1/6P 1K
490	R760	5232-102J16P	RES, CBN 1/6P 1K
489	R767	5232-473J16P	RES, CBN 1/6P 47K
859	R801	5135-681522	RES, CBN 1/2P 680
859	R802	5135-681522	RES, CBN 1/2P 680
859	R803	5135-681522	RES, CBN 1/2P 680
859	R804	5135-681522	RES, CBN 1/2P 680
858	R805	5135-102522	RES, CBN 1/2P 1K
858	R806	5135-102522	RES, CBN 1/2P 1K
857	R808	5135-472522	RES, CBN 1/2P 4.7K
857	R809	5135-472522	RES, CBN 1/2P 4.7K
857	R830	5135-472522	RES, CBN 1/2P 4.7K
848	R838	5232-471J16P	RES, CBN 1/6P 470
858	R839	5135-102522	RES, CBN 1/2P 1K

Ser. No.	Ref. No.	Part No.	Description
		INTEGRATED CIRCUIT	
441	IC701	5654-T9301-20	IC, DIGITAL (BK)
441B	IC701	5654-T9301-27	IC, DIGITAL (I) (IB) (BB)
		TRANSISTORS	
852	Q801	5611-1309A (R)	XISTOR, PNP R
852	Q802	5611-1309A (R)	XISTOR, PNP R
851	Q809	5613-3311A (R)	XISTOR, NPN R
		DIODES	
451	D701	5631-1S2473	DIODE, DET
451	D702	5631-1S2473	DIODE, DET
451	D703	5631-1S2473	DIODE, DET
451	D704	5631-1S2473	DIODE, DET
451	D705	5631-1S2473	DIODE, DET
451	D706	5631-1S2473	DIODE, DET
451	D707	5631-1S2473	DIODE, DET
451	D708	5631-1S2473	DIODE, DET
451	D709	5631-1S2473	DIODE, DET (BK)
451	D710	5631-1S2473	DIODE, DET (BK)
451	D711	5631-1S2473	DIODE, DET
485	D713	5631-1SS133	DIODE, DET
062B	D719	5637-GL5HD41	LED (I) (IB) (BB)
846	D721	5631-1SS133	DIODE, DET
846	D723	5631-1SS133	DIODE, DET
846	D725	5631-1SS133	DIODE, DET
846	D727	5631-1SS133	DIODE, DET
837	D822	5631-1SS133	DIODE, DET
837	D823	5631-1SS133	DIODE, DET
837	D824	5631-1SS133	DIODE, DET
837	D825	5631-1SS133	DIODE, DET
839	D830	5631-1S2473	DIODE, DET
853	D831	5637-S2410E1	LED
853	D832	5637-S2410E1	LED
853	D833	5637-S2410E1	LED
853	D834	5637-S2410E1	LED
854	D835	5637-S2210S1	LED
854	D836	5637-S2210S1	LED
		MISCELLANEOUS	
463	CC701	5213-S0207221	C COMPOSITE
540	CN101B	4443-05401019	CONNECTOR
860	CN804A	4443-05501013	CONNECTOR
931	CW100	4163-S0202401	CONNECTOR W/W
531	FL701	5722-057	TUBE DISPLAY
554	LUG3	4211-4	LUG, W-701
534	S11	4437-00603	SWITCH, PU-TC
534	S12	4437-00603	SWITCH, PU-TC
534	S13	4437-00603	SWITCH, PU-TC
534	S14	4437-00603	SWITCH, PU-TC
534	S15	4437-00603	SWITCH, PU-TC
534	S16	4437-00603	SWITCH, PU-TC
534	S17	4437-00603	SWITCH, PU-TC
534	S18	4437-00603	SWITCH, PU-TC
533	S19	4437-00604	SWITCH, PU-TC
533	S20	4437-00604	SWITCH, PU-TC
533	S21	4437-00604	SWITCH, PU-TC
533	S22	4437-00604	SWITCH, PU-TC
533	S23	4437-00604	SWITCH, PU-TC
534	S24	4437-00603	SWITCH, PU-TC
534	S25	4437-00603	SWITCH, PU-TC
855	S31	4437-00604	SWITCH, PU-TC
855	S32	4437-00604	SWITCH, PU-TC
855	S33	4437-00604	SWITCH, PU-TC
855	S34	4437-00604	SWITCH, PU-TC
855	S35	4437-00604	SWITCH, PU-TC
855	S36	4437-00604	SWITCH, PU-TC
449	X701	5691-00720027	XTAL, OSC

PCB-15 POWER SWITCH P.C. BOARD

		MISCELLANEOUS	
944	CN11	4443-040185	CONNECTOR
906	S1	4431-A027610	SWITCH, PUSH

Ser. No.	Ref. No.	Part No.	Description

ABBREVIATIONS IN PARTS LIST

CAPACITORS

CAP, MINI ELE	: Electrolytic
CAP, CER	: Ceramic
CAP, PPP	: Polypropylene
CAP, MYL	: Mylar
CAP, MCA	: Mica
CAP, MINI BP	: Bipolar
CAP, ELE BP	: Electrolytic Bipolar
CAP, STY	: Polystyrene Film
CAP, SPE	: Special
CAP, TAN	: Tantalum
470 μ	: 470 μ F
6800p	: 6800pF
.047 μ	: 0.047 μ F

RESISTORS

RES, CBN 1/6P	: Carbon 1/6W
RES, FUSE	: Fuse
RES, CEM 5P	: Cement 5W
RES, MTL 1P	: Metal 1W
2.2K	: 2.2kΩ
220	: 220Ω

TRANSISTORS

XISTOR	: Transistor
FET	: Field Effect Transistor

CONTROLS

RES, V CBN	: Variable Carbon Resistor
RES, SEMI FIX	: Semi-fixed Resistor

CHASSIS MISCELLANEOUS

786	⚠F1	5732-252031	FUSE BK
786B	⚠F1	5732-801030	FUSE 1 1B BB
535	⚠F2	5732-162031	FUSE BK
535B	⚠F2	5732-162030	FUSE 1 1B BB
543	JL101	4242-S0319131	JUMPER LEAD
868	JL804	4242-S0313151	JUMPER LEAD
381	L251	5911-266	ANT COIL, BC
917	⚠P1	4161-71151	CORD W/PLUG BK
917B	⚠P1	4161-7256	CORD W/PLUG 1 1B
917C	⚠P1	4161-04100	CORD W/PLUG BB
771	⚠T1	5584-S8901	XFORMER, POWER BK
771B	⚠T1	5584-S8902	XFORMER, POWER 1 1B BB
645	LUG	4211-4	LUG

PACKAGE PARTS LIST

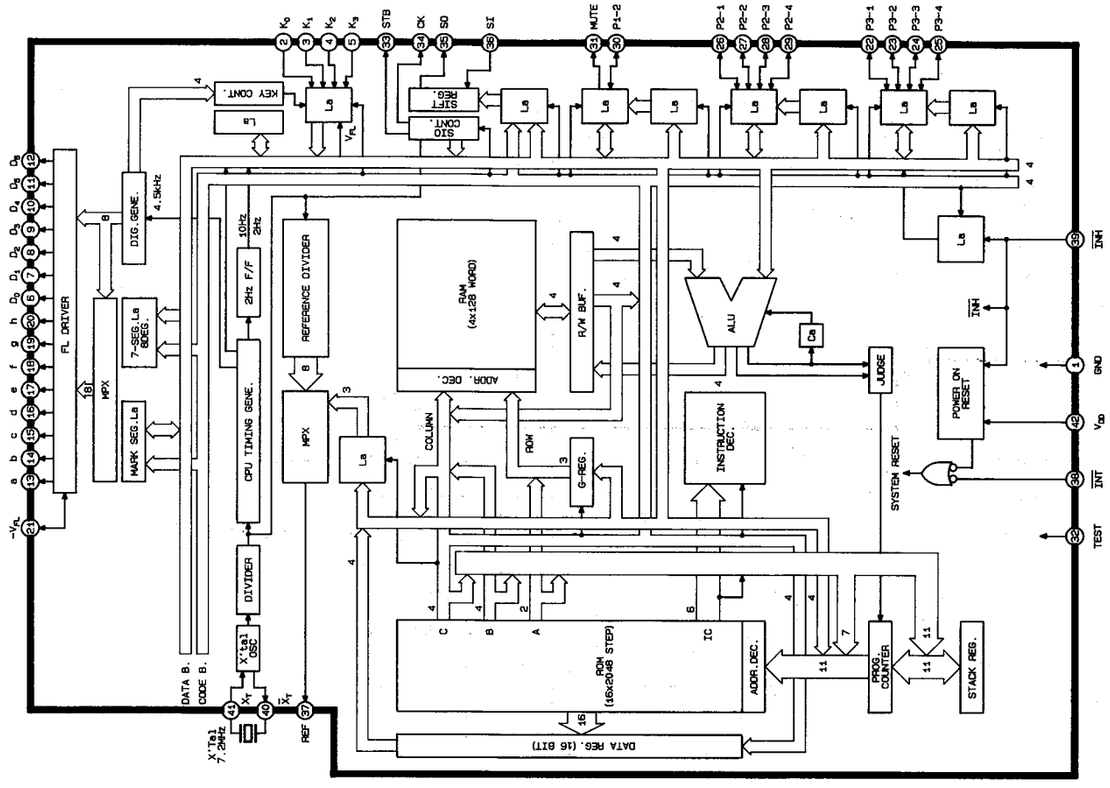
021	1756-06304	LABEL 1 1B BB
022	1756-03108	LABEL 1 1B
022	1756-03111	LABEL BB
027	1756-08501	LABEL BB
029	1111-J30235	OWNER GUIDE, POWER SW CAUTION 1 1B BB
111	1221-28012	CARTON BOX
112	1222-7362	CUSHION
113	1222-7365	CUSHION
116	1223-R0120055	SOFT SHEET
117	1241-R0123350	POLYETHY BAG, OWNER GUIDE
118	1241-R0160600	POLYETHY BAG, SET
119	1111-J30337	OWNER GUIDE BK
119	1111-J30338	OWNER GUIDE 1 1B BB
120	1113-717004	OWNER CARD BK
121	1119-047	ATTACH SHEET, WARRANTY BK
122	1119-01201	ATTACH SHEET, UL SAFETY BK
123	1119-0137	ATTACH SHEET, SERVICE AGENCIES BK
548	1397-6	T FEEDER ANT

NOTE

⚠ SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

IC BLOCK DIAGRAM / IC TERMINAL FUNCTIONS

IC701 : TC9301AN-020 Micro Computer



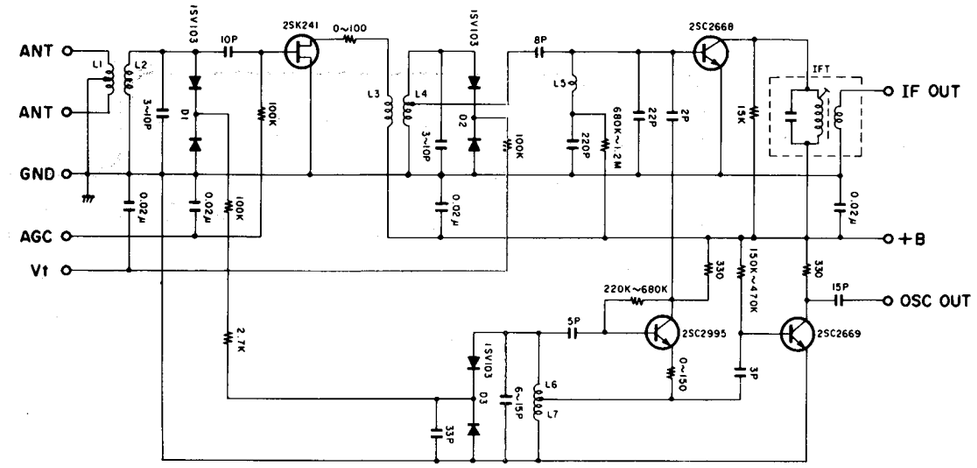
Pin No.	Pin Name	I/O	Function
1	GND	—	GND pin
2	K0	I	4-bit key input port
3	K1	I	4-bit key input port
4	K2	I	4-bit key input port
5	K3	I	4-bit key input port
6	D0	O	Digit output
7	D1	O	Digit output
8	D2	O	Digit output
9	D3	O	Digit output
10	D4	O	Digit output
11	D5	O	Digit output
12	D6	O	Digit output
13	a	O	Segment output
14	b	O	Segment output
15	c	O	Segment output
16	d	O	Segment output
17	e	O	Segment output
18	f	O	Segment output
19	g	O	Segment output
20	h	O	Segment output
21	—VFL	I	Negative power terminal (4-bit key input port, digit output, segment output)

Pin No.	Pin Name	I/O	Function
22	P3-1	I/O	4-bit I/O port (3)
23	P3-2	I/O	4-bit I/O port (3)
24	P3-3	I/O	4-bit I/O port (3)
25	P3-4	I/O	4-bit I/O port (3)
26	P2-1	I/O	4-bit I/O port (2)
27	P2-2	I/O	4-bit I/O port (2)
28	P2-3	I/O	4-bit I/O port (2)
29	P2-4	I/O	4-bit I/O port (2)
30	P1-2	I/O	1-bit I/O port (1)
31	MUTE	O	1-bit muting signal output port
32	TEST	I	Test mode control input terminal
33	STB	O	Serial interface (strove pulse output)
34	CK	O	Serial interface (serial clock output)
35	SO	O	Serial interface (serial data output)
36	SI	I	Serial interface (serial data input)
37	REF	O	Reference frequency signal output terminal
38	$\overline{INT}$	I	Initialize input (system reset signal input terminal)
39	$\overline{INH}$	I	Inhibit input (select signal input port of radio mode)
40	$\overline{XT}$	—	Connect quartz oscillator
41	XT	—	Connect quartz oscillator
42	V_{DD}	I	Power supply terminal

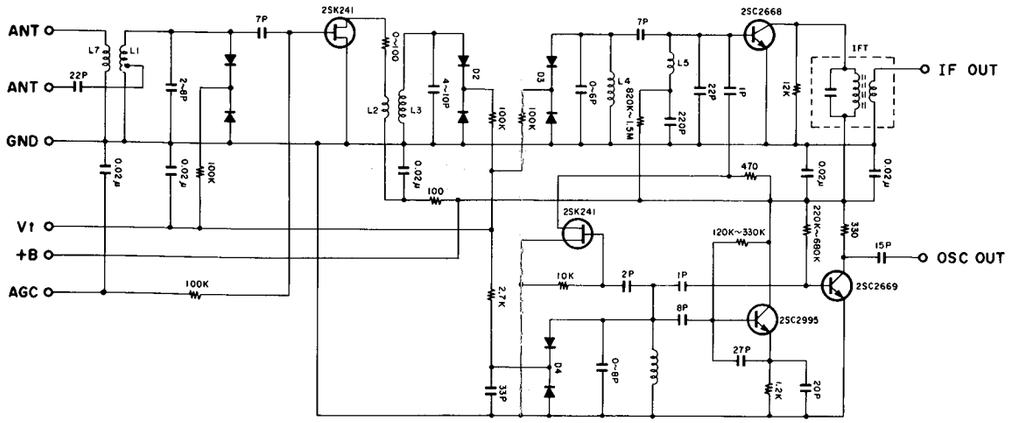
SCHEMATIC DIAGRAM

(FM TUNER PACK SECTION)

- **For North America area model**



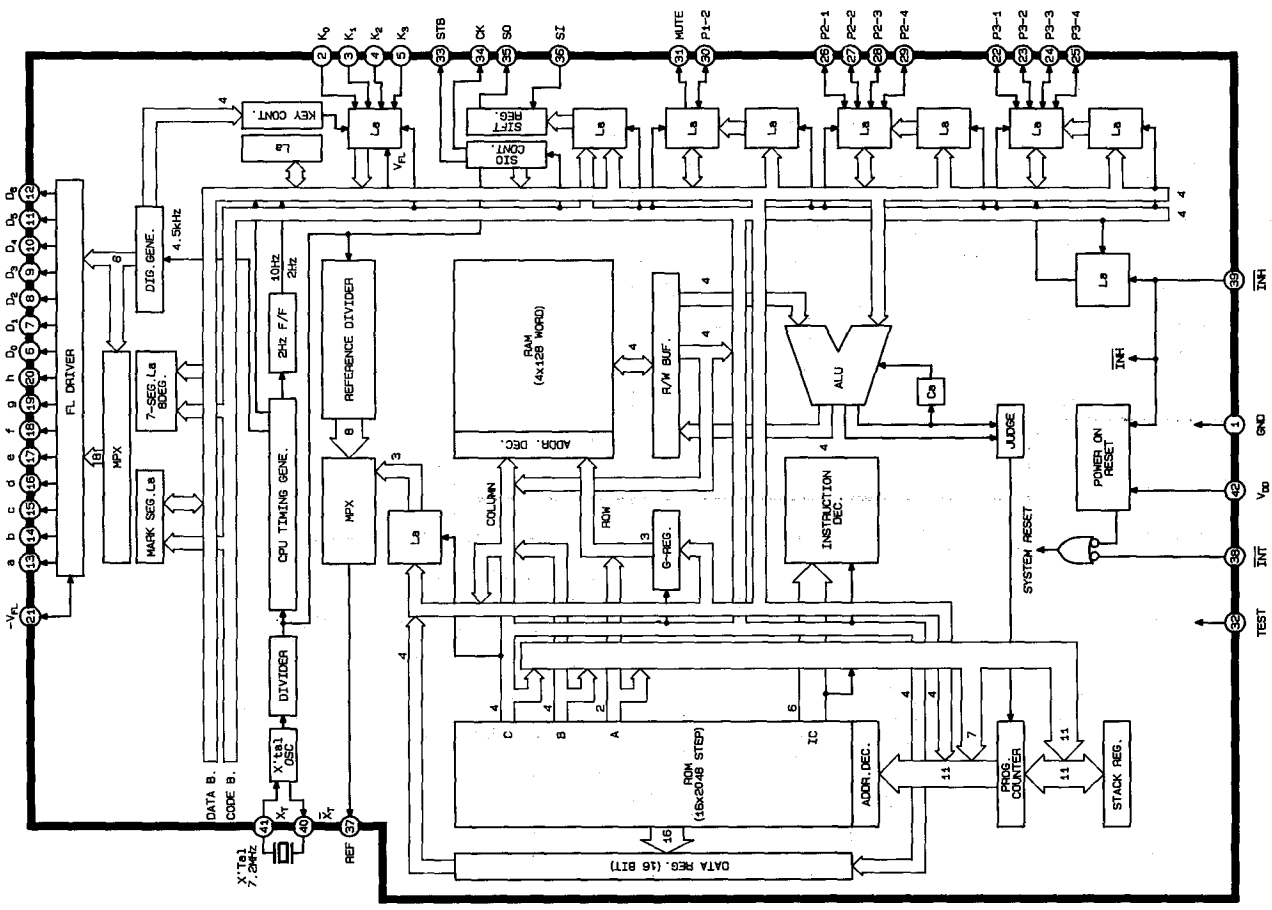
- **For International and Australia models**



NOTE: Front End parts not available. Schematic diagram supplied for reference only.

IC BLOCK DIAGRAM / IC TERMINAL FUNCTIONS

IC701 : TC9301AN-020 *Micro Computer*



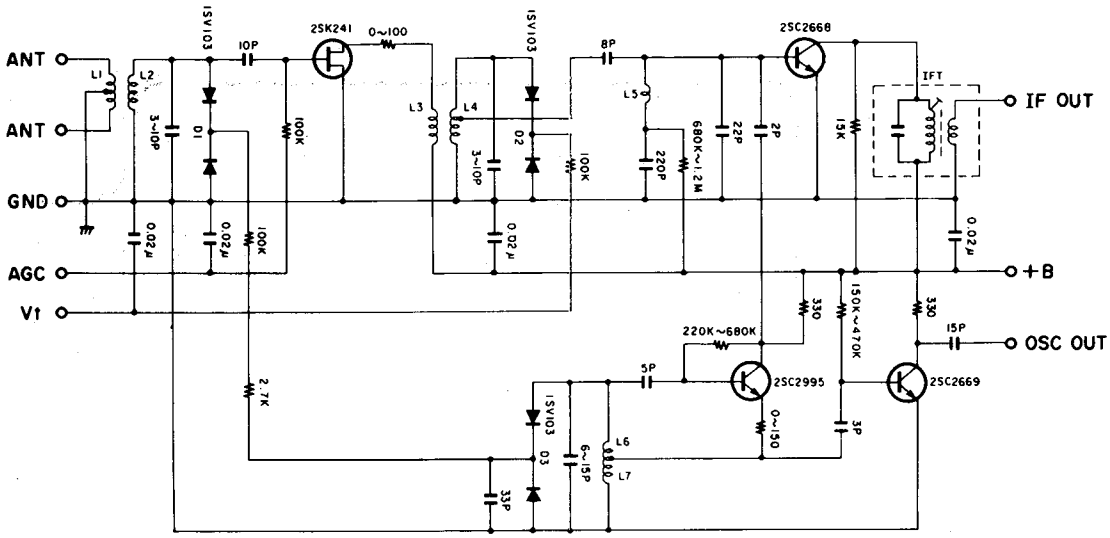
Pin No.	Pin Name	I/O	Function
1	GND	—	GND pin
2	K0	I	4-bit key input port
3	K1	I	4-bit key input port
4	K2	I	4-bit key input port
5	K3	I	4-bit key input port
6	D0	O	Digit output
7	D1	O	Digit output
8	D2	O	Digit output
9	D3	O	Digit output
10	D4	O	Digit output
11	D5	O	Digit output
12	D6	O	Digit output
13	a	O	Segment output
14	b	O	Segment output
15	c	O	Segment output
16	d	O	Segment output
17	e	O	Segment output
18	f	O	Segment output
19	g	O	Segment output
20	h	O	Segment output
21	—VFL	I	Negative power terminal (4-bit key input port, digit output, segment output)

Pin No.	Pin Name	I/O	Function
22	P3-1	I/O	4-bit I/O port (3)
23	P3-2	I/O	4-bit I/O port (3)
24	P3-3	I/O	4-bit I/O port (3)
25	P3-4	I/O	4-bit I/O port (3)
26	P2-1	I/O	4-bit I/O port (2)
27	P2-2	I/O	4-bit I/O port (2)
28	P2-3	I/O	4-bit I/O port (2)
29	P2-4	I/O	4-bit I/O port (2)
30	P1-2	I/O	1-bit I/O port (1)
31	MUTE	O	1-bit muting signal output port
32	TEST	I	Test mode control input terminal
33	STB	O	Serial interface (strove pulse output)
34	CK	O	Serial interface (serial clock output)
35	SO	O	Serial interface (serial data output)
36	SI	I	Serial interface (serial data input)
37	REF	O	Reference frequency signal output terminal
38	$\overline{INT}$	I	Initialize input (system reset signal input terminal)
39	$\overline{INH}$	I	Inhibit input (select signal input port of radio mode)
40	$\overline{XT}$	—	Connect quartz oscillator
41	XT	—	Connect quartz oscillator
42	V_{DD}	I	Power supply terminal

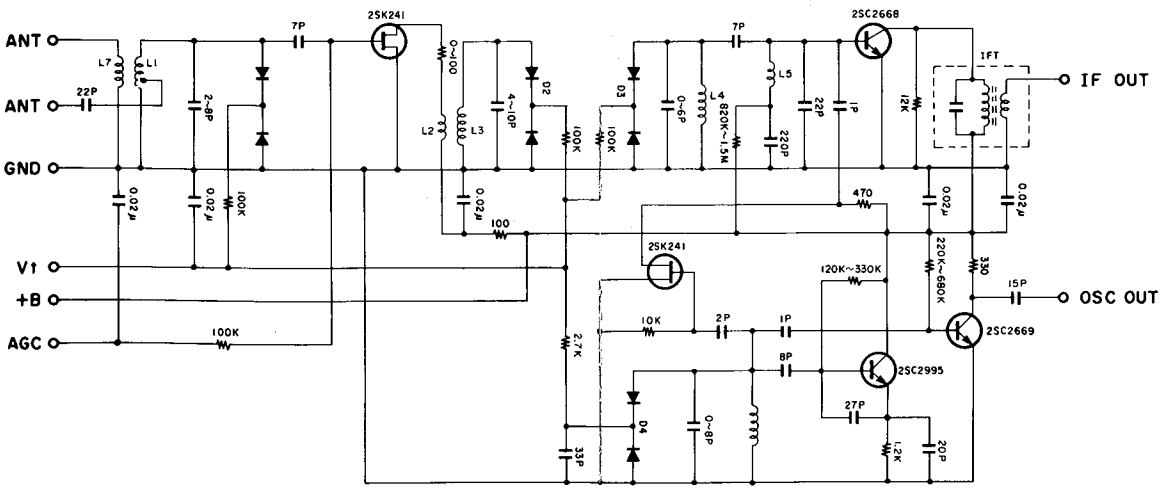
SCHEMATIC DIAGRAM

(FM TUNER PACK SECTION)

- For North America area model

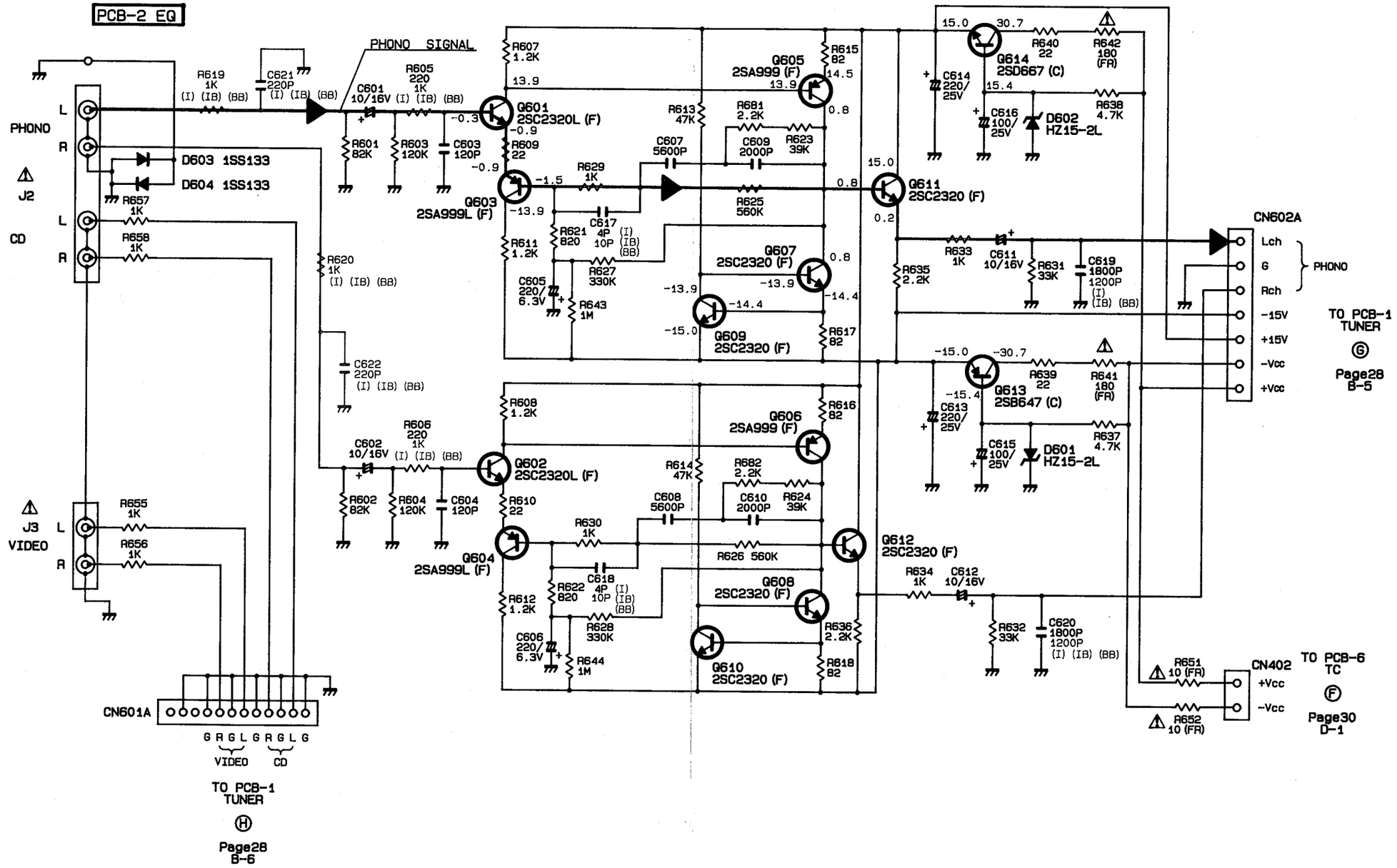


- For International and Australia models

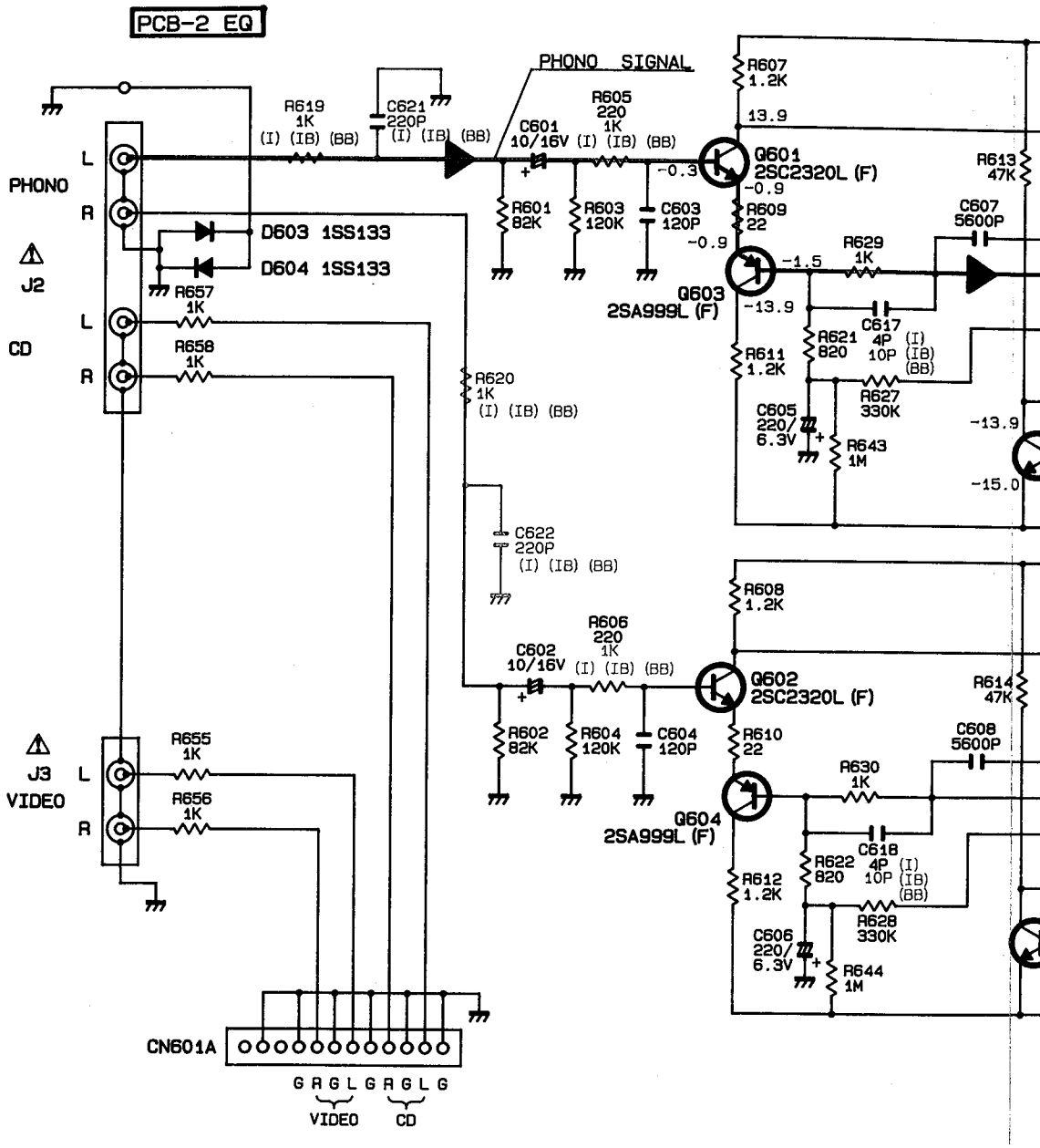


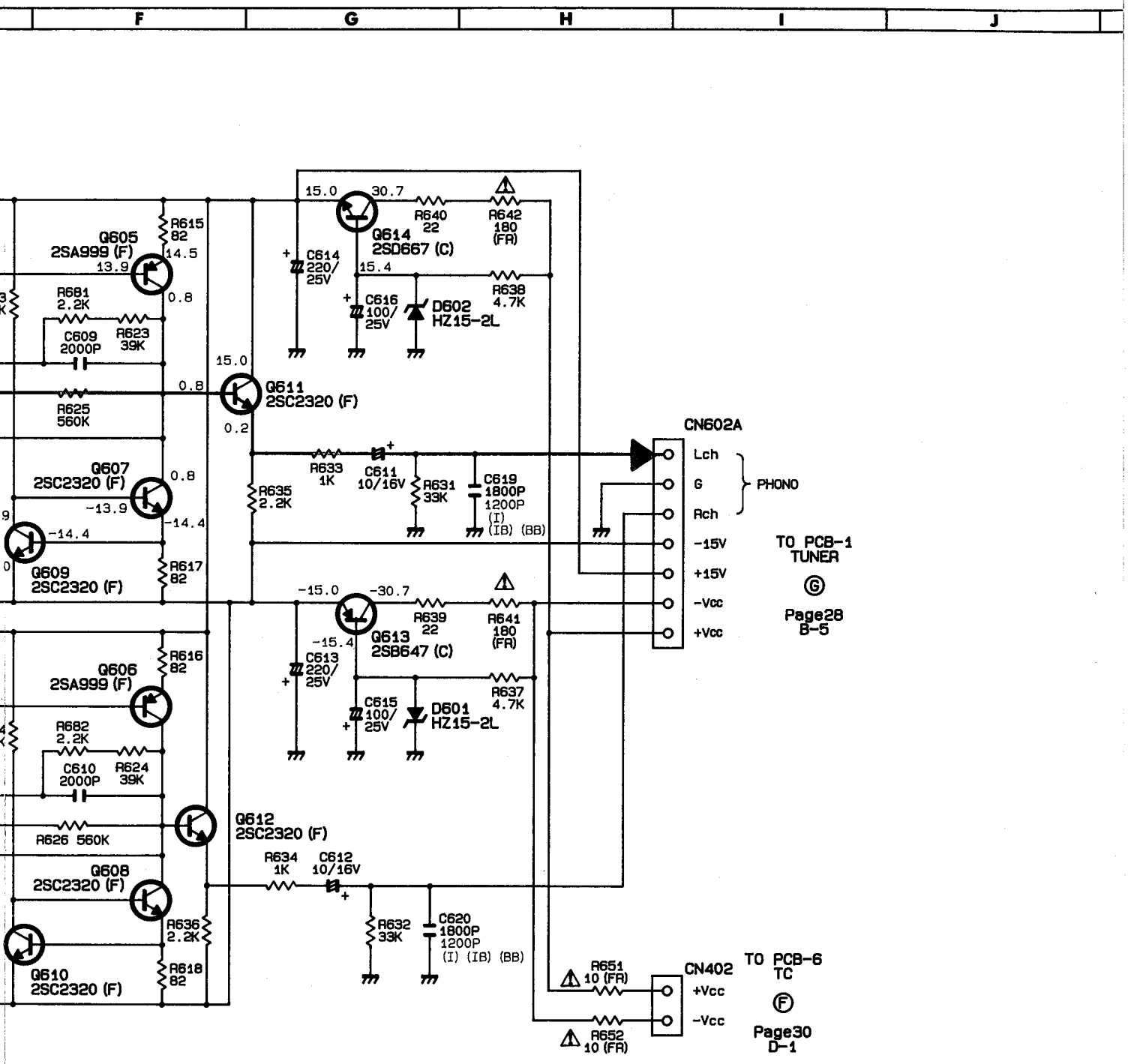
NOTE: Front End parts not available. Schematic diagram supplied for reference only.

SCHEMATIC DIAGRAM

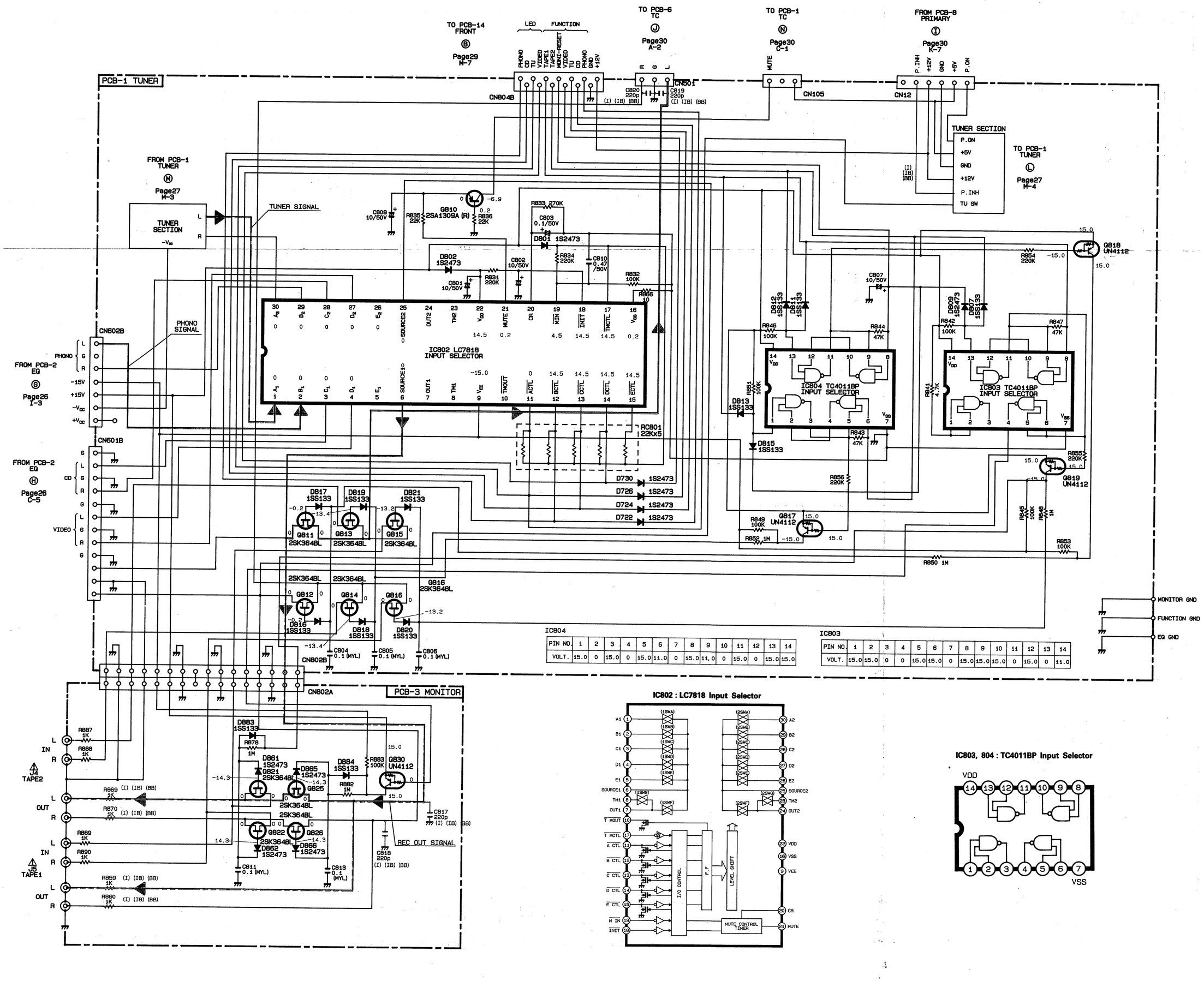


SCHEMATIC DIAGRAM




F
G
H
I
J
Q605
2SA999 (F)
R615
82
13.9
14.5
0.8
R681
2.2K
C609
2000P
R623
39K
R625
560K
Q607
2SC2320 (F)
0.8
-13.9
-14.4
Q609
2SC2320 (F)
R617
82
Q606
2SA999 (F)
R616
82
R682
2.2K
C610
2000P
R624
39K
R626 560K
Q608
2SC2320 (F)
R636
2.2K
R618
82
Q610
2SC2320 (F)
15.0
30.7
R640
22
R642
180
(FR)
Q614
2SD667 (C)
C614
220/
25V
15.4
R638
4.7K
C616
100/
25V
D602
HZ15-2L
15.0
Q611
2SC2320 (F)
0.2
R633
1K
C611
10/16V
R631
33K
C619
1800P
1200P
(I)
(IB) (BB)
R635
2.2K
-15.0
-30.7
R639
22
R641
180
(FR)
Q613
2SB647 (C)
-15.4
C613
220/
25V
R637
4.7K
C615
100/
25V
D601
HZ15-2L
Q612
2SC2320 (F)
R634
1K
C612
10/16V
R632
33K
C620
1800P
1200P
(I) (IB) (BB)
CN602A
Lch
G
Rch
PHONO
-15V
+15V
-Vcc
+Vcc
TO PCB-1
TUNER
G
Page28
B-5
R651
10 (FR)
R652
10 (FR)
CN402
+Vcc
-Vcc
TO PCB-6
TC
F
Page30
D-1

SCHEMATIC DIAGRAM



IC804

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VOLT.	15.0	0	15.0	0	15.0	11.0	0	15.0	11.0	0	15.0	0	15.0	15.0

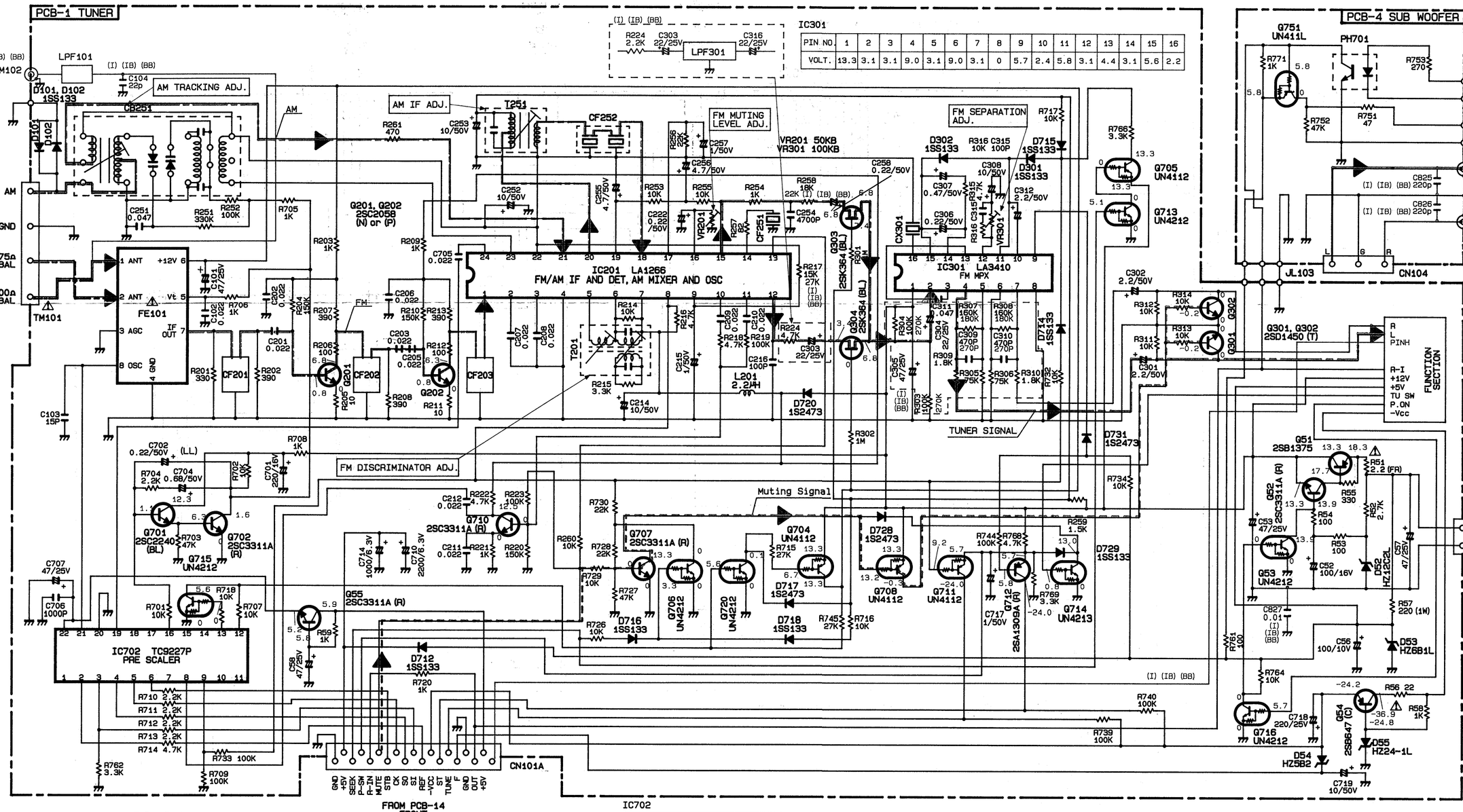
IC803

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VOLT.	15.0	15.0	0	0	15.0	15.0	0	15.0	15.0	15.0	0	15.0	0	11.0

IC802 : LC7818 Input Selector

IC803, 804 : TC4011BP Input Selector

SCHEMATIC DIAGRAM



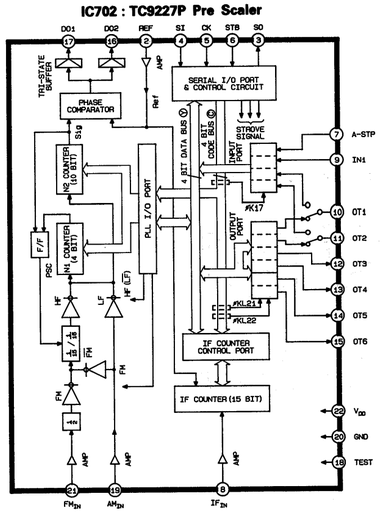
IC301																
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VOLT.	13.3	3.1	3.1	9.0	3.1	9.0	3.1	0	5.7	2.4	5.8	3.1	4.4	3.1	5.6	2.2

IC702																					
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
VOLT.	—	2.6	0	0	0	0	—	2.5	4.5	0	0	5.1	0	—	—	1.1	—	—	0	0	2.5	5.1

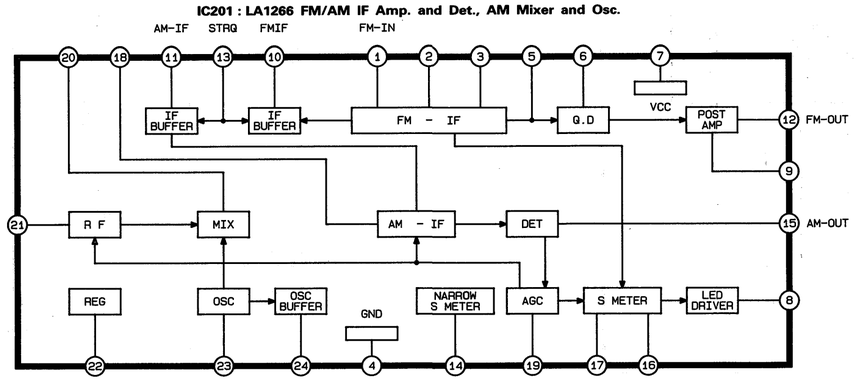
IC201																								
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
VOLT.	2.5	2.5	2.5	0	12.5	12.5	12.5	9.2	3.8	2.5	2.8	3.3	0	1.5	1.4	0.1	0	2.5	1.5	0.8	4.0	4.0	4.0	3.2

UN4112	R1 22K R2 22K
UN411L	R1 4.7K R2 4.7K
UN4212	R1 22K R2 22K
UN4213	R1 47K R2 47K

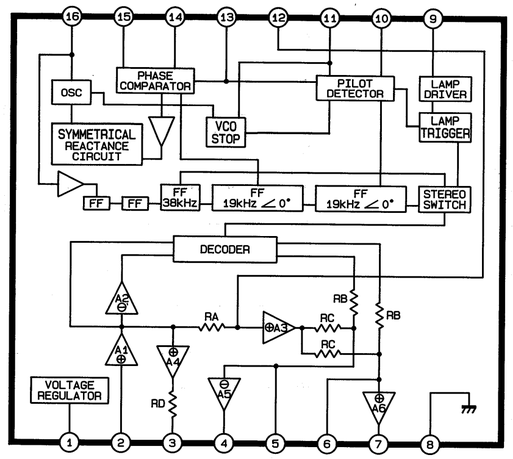
IC702 : TC9227P Pre Scaler



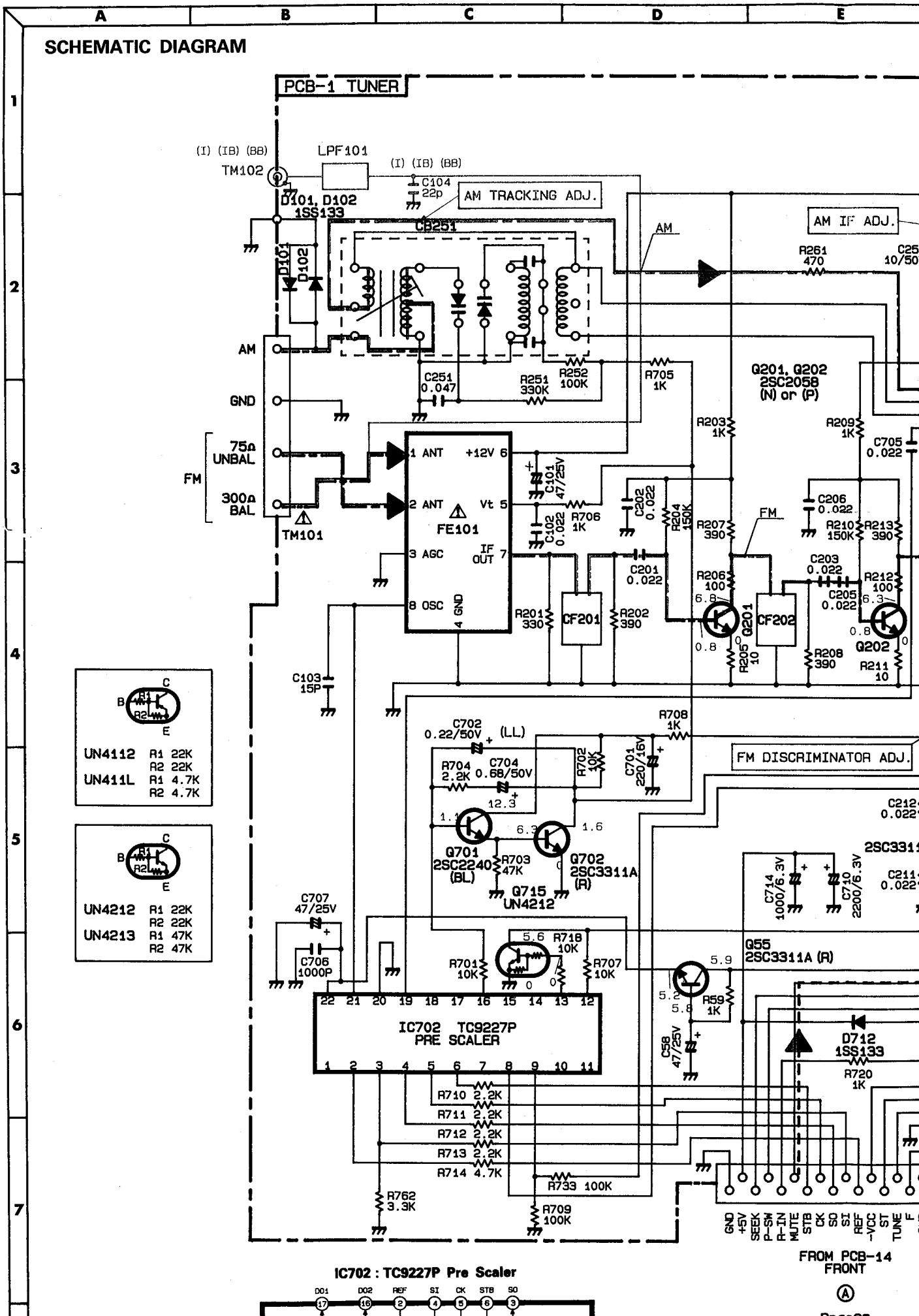
IC201 : LA1266 FM/AM IF Amp. and Det., AM Mixer and Osc.



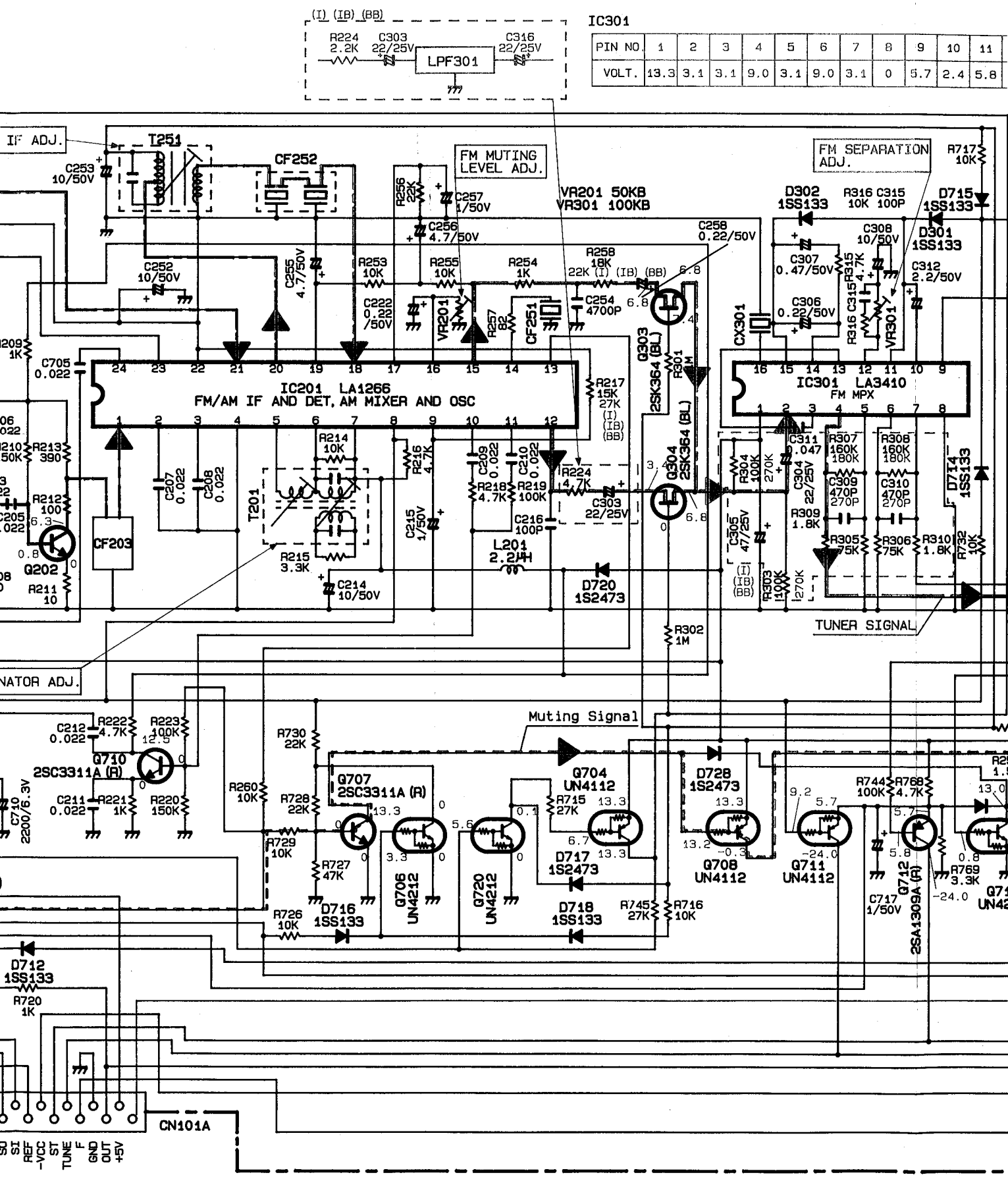
IC301 : LA3410 FM MPX



SCHEMATIC DIAGRAM



E | F | G | H | I | J



IC301

PIN NO.	1	2	3	4	5	6	7	8	9	10	11
VOLT.	13.3	3.1	3.1	9.0	3.1	9.0	3.1	0	5.7	2.4	5.8

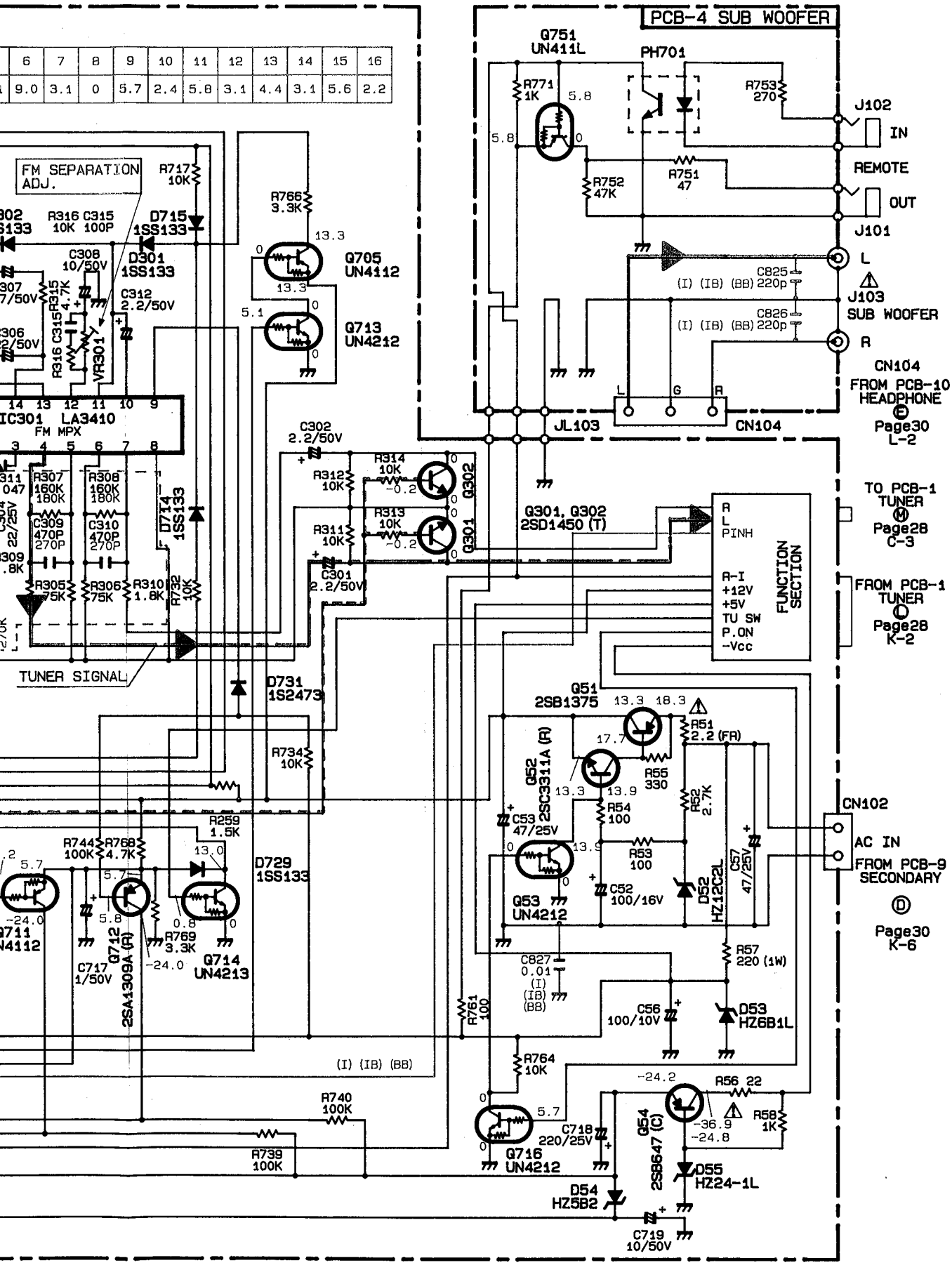
IC702

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
VOLT.	—	2.6	0	0	0	0	—	2.5	4.5	0	0	5.1	0	—	—	1.1	—	—	0

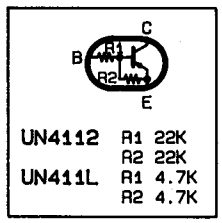
1 PCB-14
FRONT
A

J K L M N

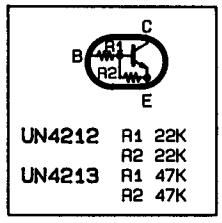
	6	7	8	9	10	11	12	13	14	15	16
	9.0	3.1	0	5.7	2.4	5.8	3.1	4.4	3.1	5.6	2.2



	14	15	16	17	18	19	20	21	22
	—	—	1.1	—	—	0	0	2.5	5.1



UN4112 R1 22K
R2 22K
UN411L R1 4.7K
R2 4.7K



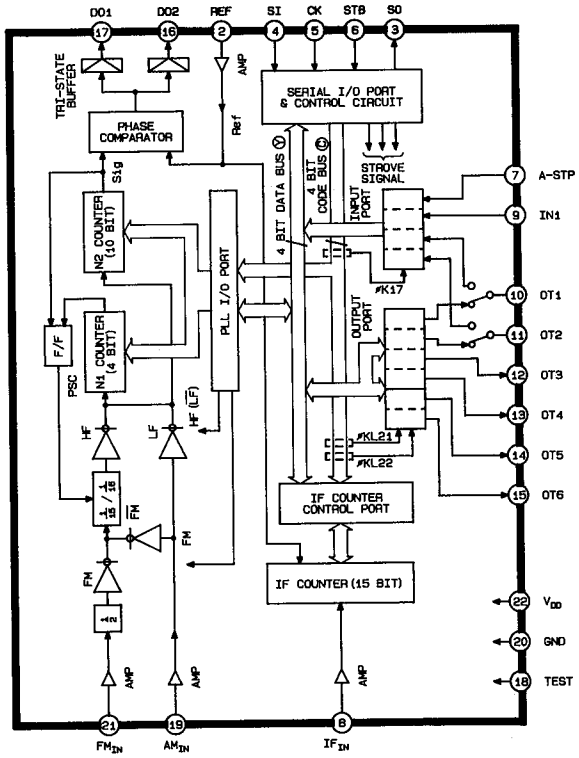
UN4212 R1 22K
R2 22K
UN4213 R1 47K
R2 47K

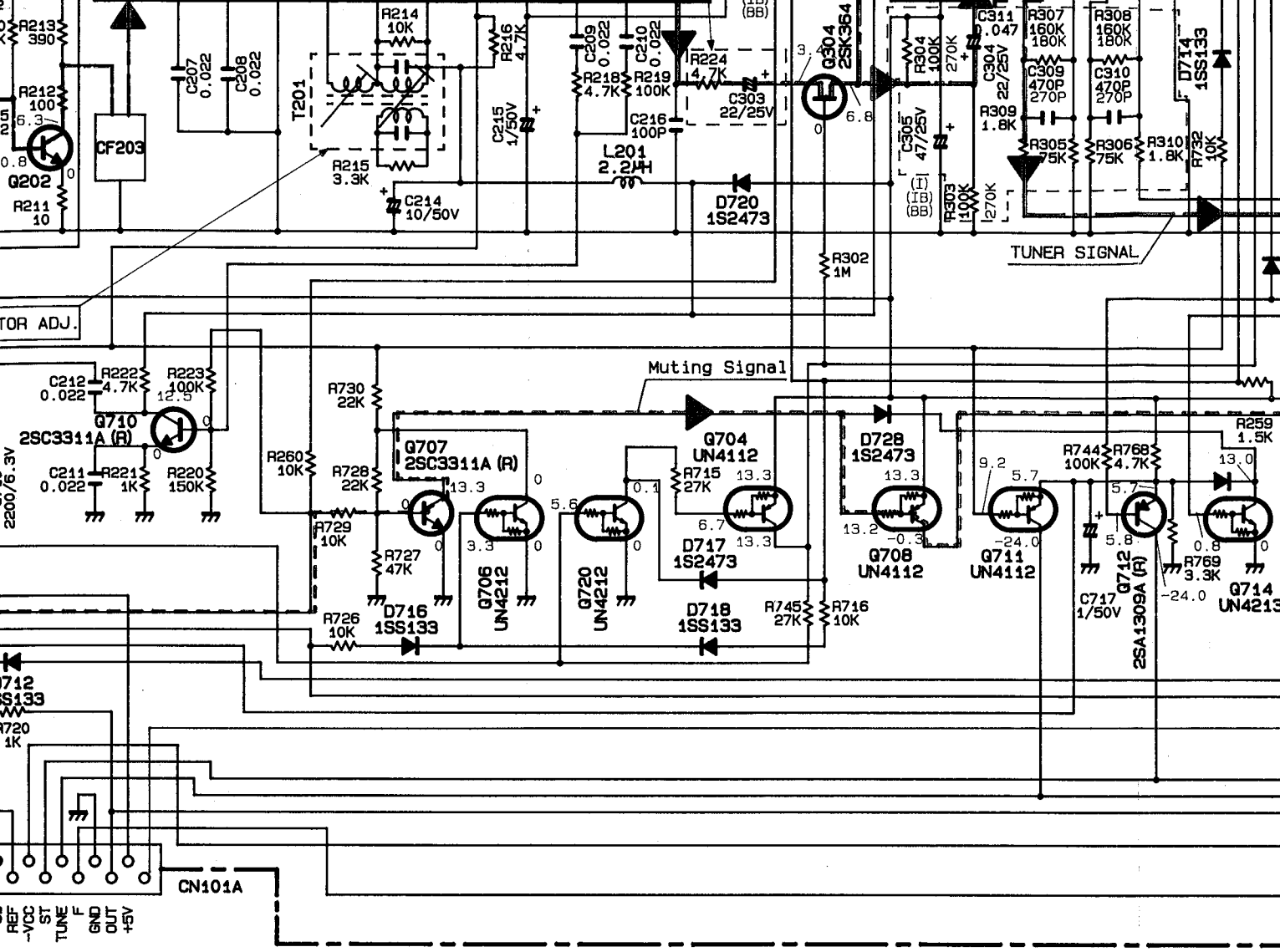
BAL
TM101
FE101
ANT
Vt
IF OUT
AGC
OSC
GND
C102 0.022
R706 1K
R204 150K
C201 0.022
R207 390
FM
R210 150K
R213 390
C203 0.022
R206 100
R212 100
C205 0.022
R201 330
CF201
R202 390
Q201
CF202
Q202
R205 10
R208 390
R211 10
C103 15P
C702 0.22/50V (LL)
R708 1K
FM DISCRIMINATOR ADJ.
R704 2.2K
C704 0.68/50V
R702 10K
C701 220/16V
Q701 2SC2240 (BL)
R703 47K
Q702 2SC3311A (R)
Q715 UN4212
C714 1000/6.3V
C710 2200/6.3V
C707 47/25V
C706 1000P
R718 10K
R701 10K
R707 10K
Q55 2SC3311A (R)
R59 1K
C58 47/25V
D712 1SS133
R720 1K
IC702 TC9227P PRE SCALER
R710 2.2K
R711 2.2K
R712 2.2K
R713 2.2K
R714 4.7K
R733 100K
R762 3.3K
R709 100K
GND +5V SEEK P-SW R-IN MUTE STB CK SO SI REF -VCC ST TUNE F

FROM PCB-14 FRONT

Ⓐ

IC702 : TC9227P Pre Scaler





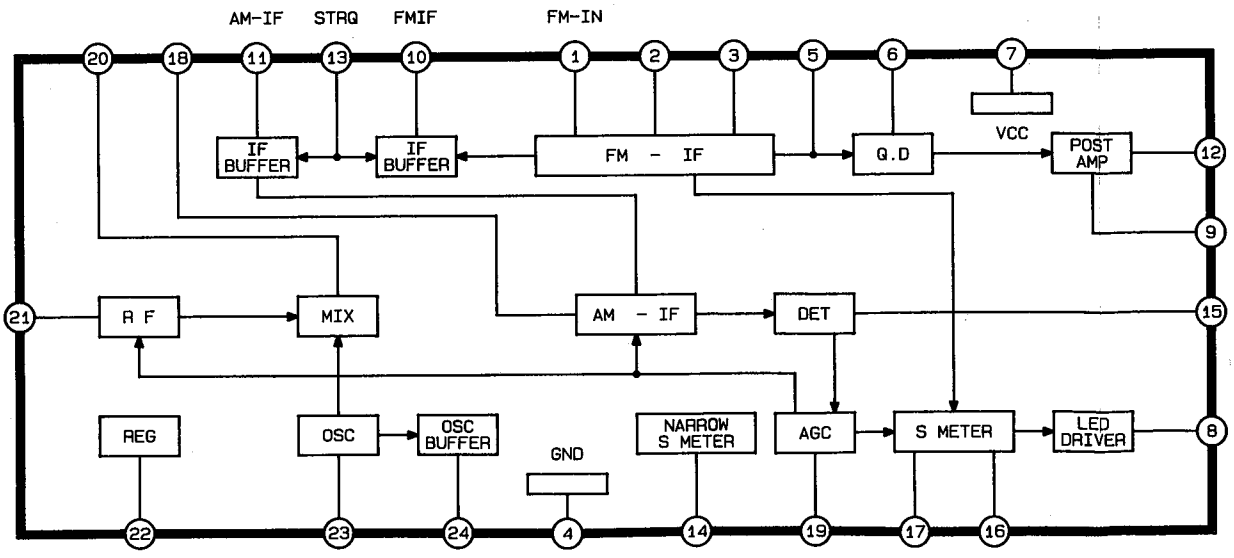
IC702

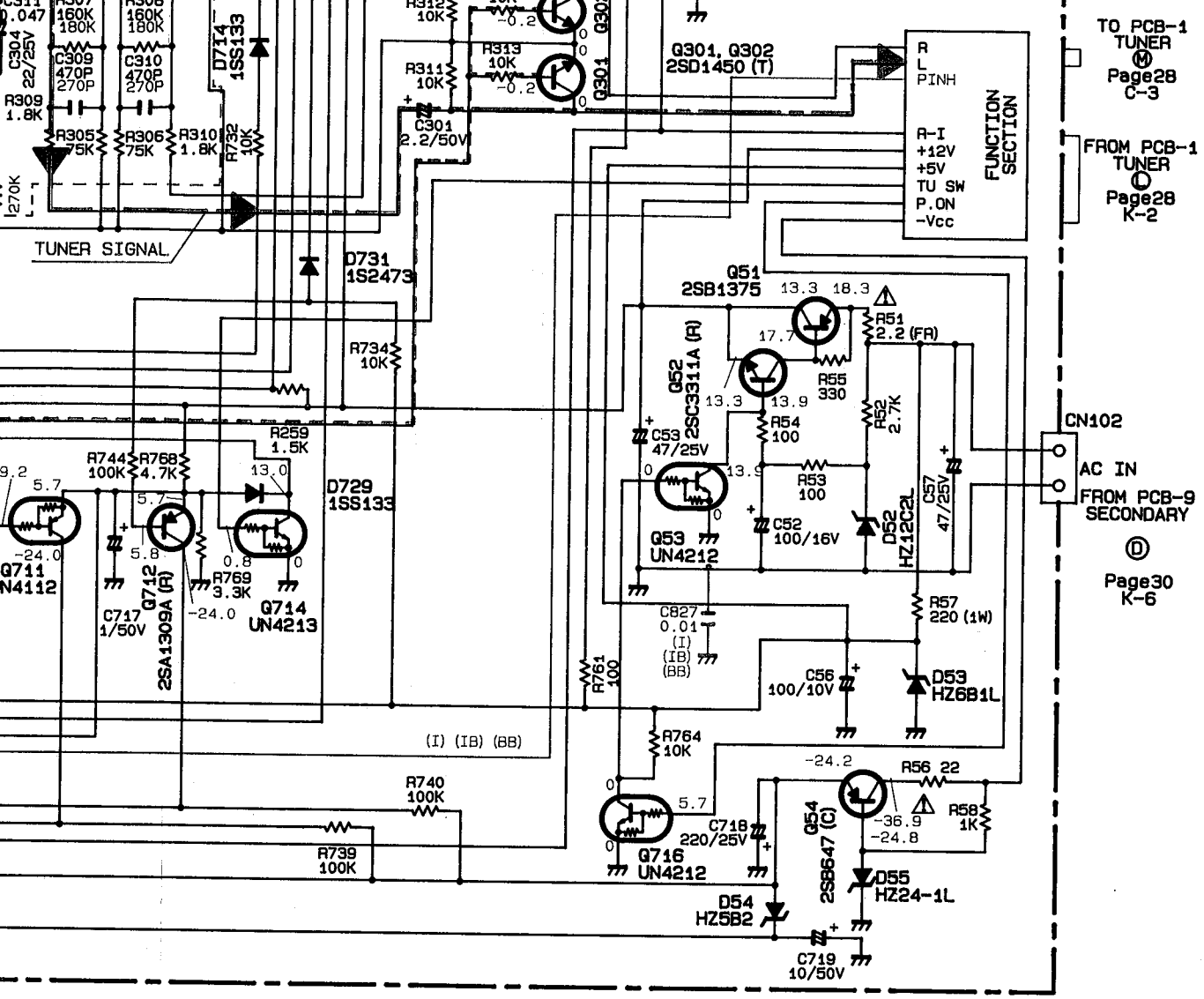
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOLT.	—	2.6	0	0	0	0	—	2.5	4.5	0	0	5.1	0	—	—	1.1	—	—	0	0

IC201

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOLT.	2.5	2.5	2.5	0	12.5	12.5	12.5	9.2	3.8	2.5	2.8	3.3	0	1.5	1.4	0.1	0	2.5	1.5	0,8

IC201 : LA1266 FM/AM IF Amp. and Det., AM Mixer and Osc.

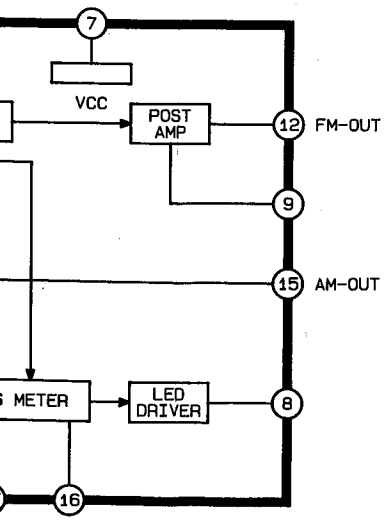




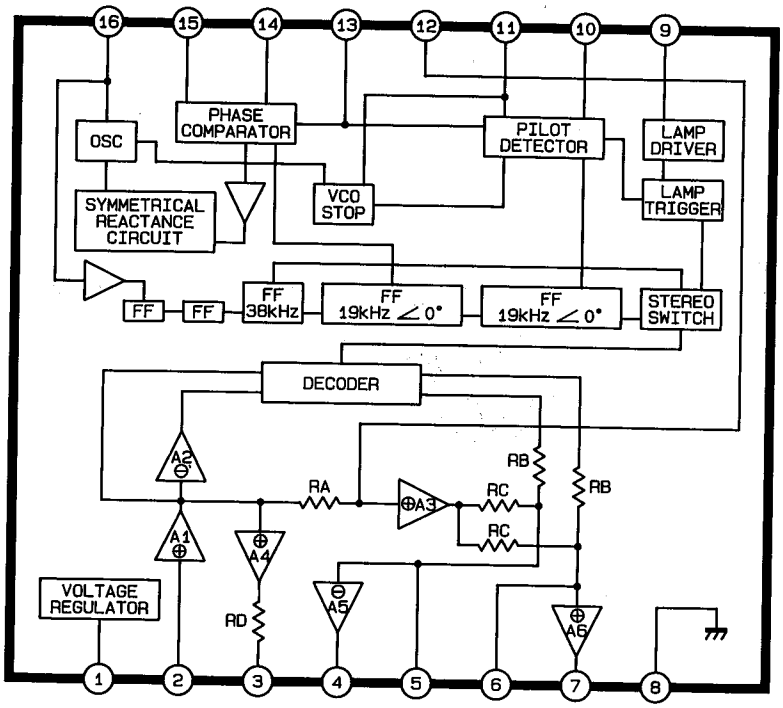
13	14	15	16	17	18	19	20	21	22
	—	—	1.1	—	—	0	0	2.5	5.1

13	14	15	16	17	18	19	20	21	22	23	24
	1.5	1.4	0.1	0	2.5	1.5	0.8	4.0	4.0	4.0	3.2

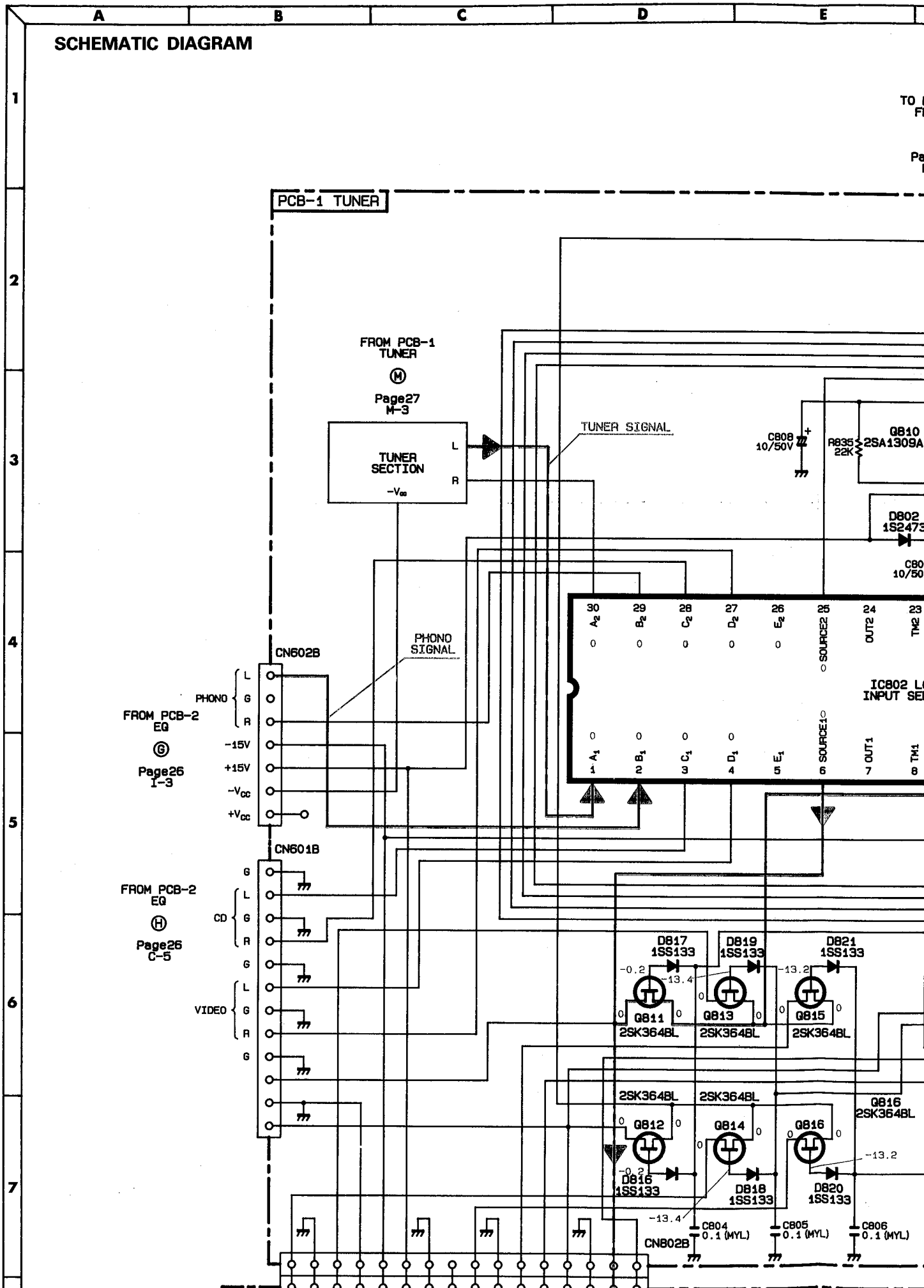
Osc.

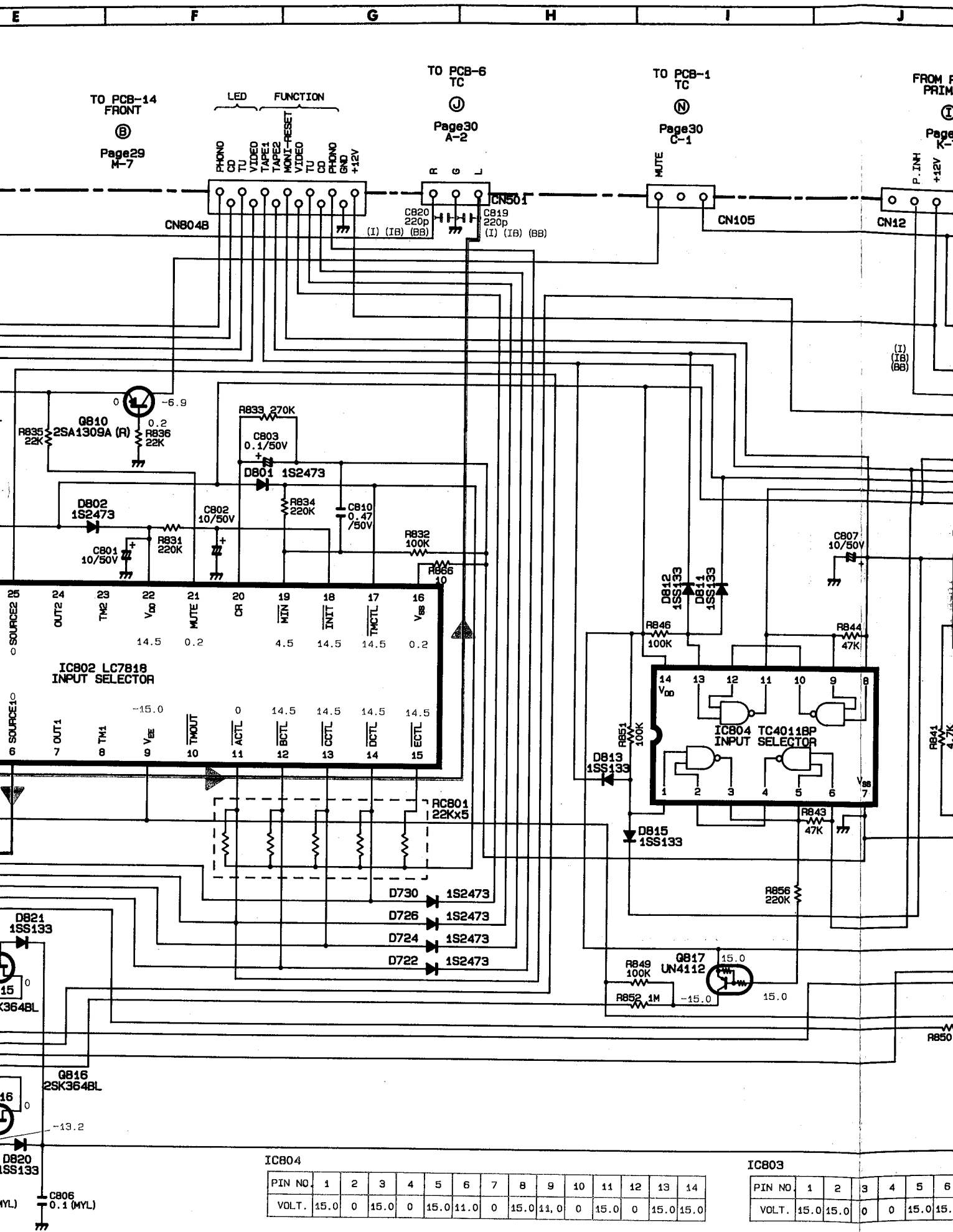


IC301 : LA3410 FM MPX



SCHEMATIC DIAGRAM



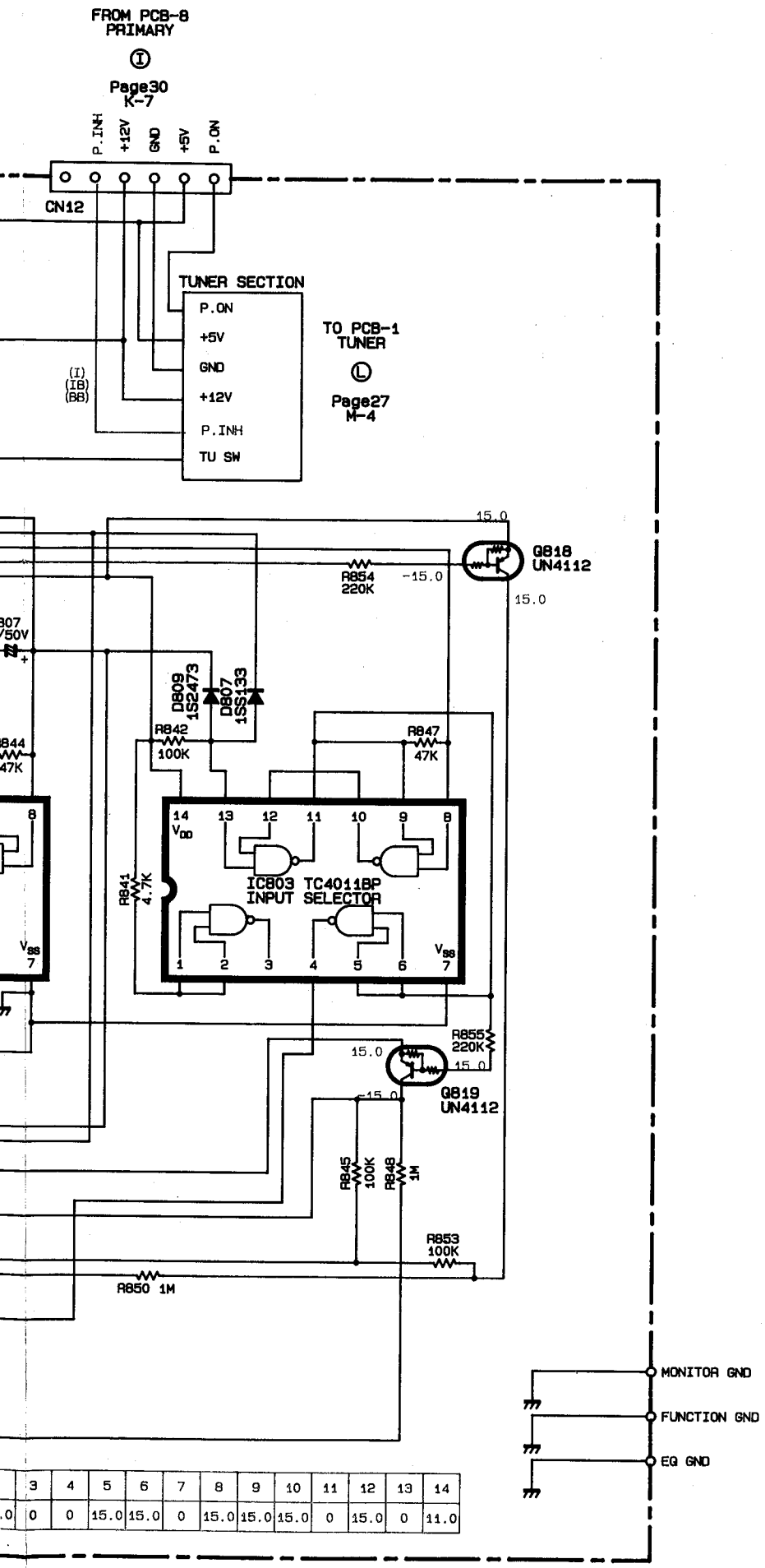


IC804

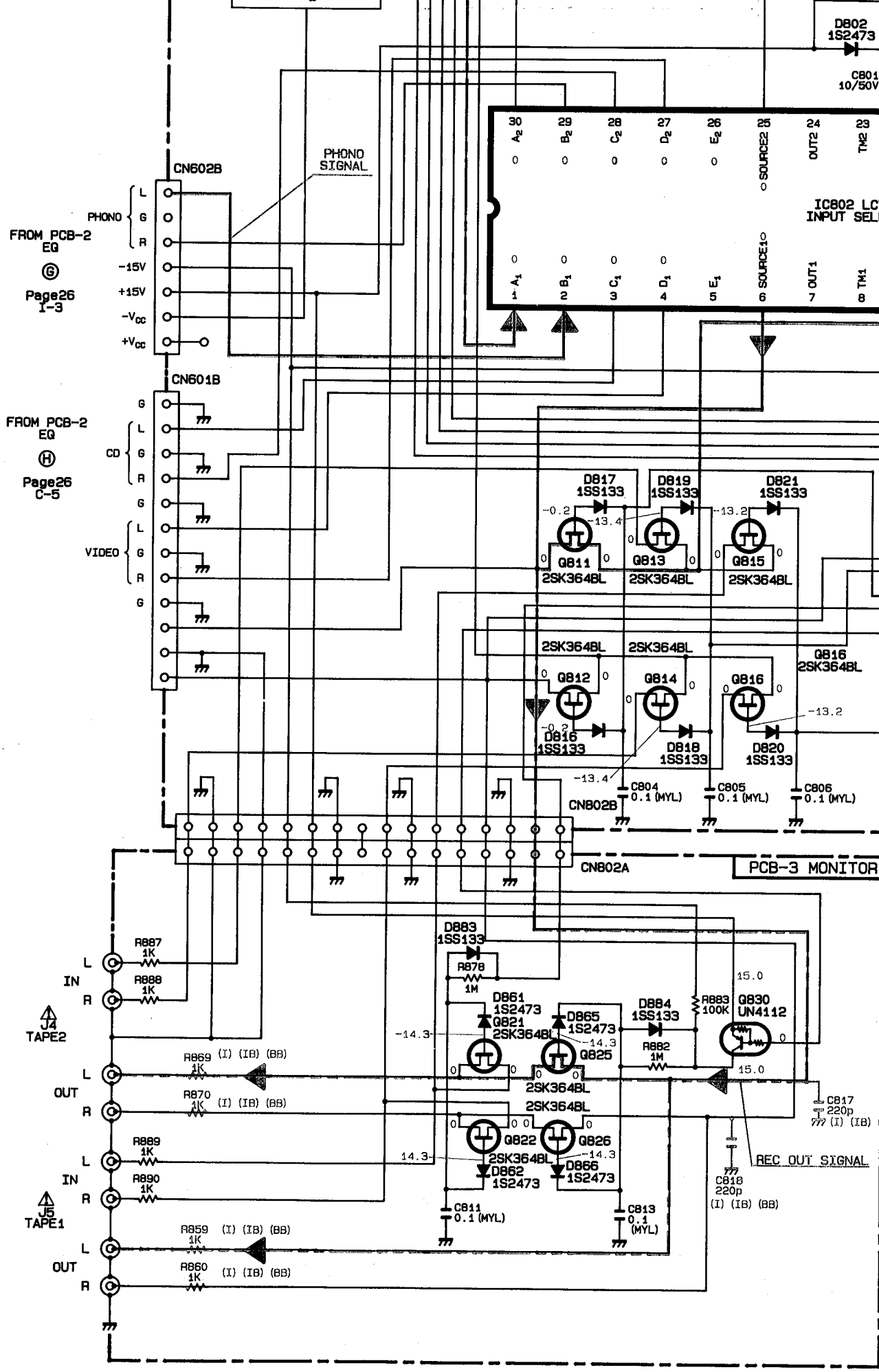
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VOLT.	15.0	0	15.0	0	15.0	11.0	0	15.0	11.0	0	15.0	0	15.0	15.0

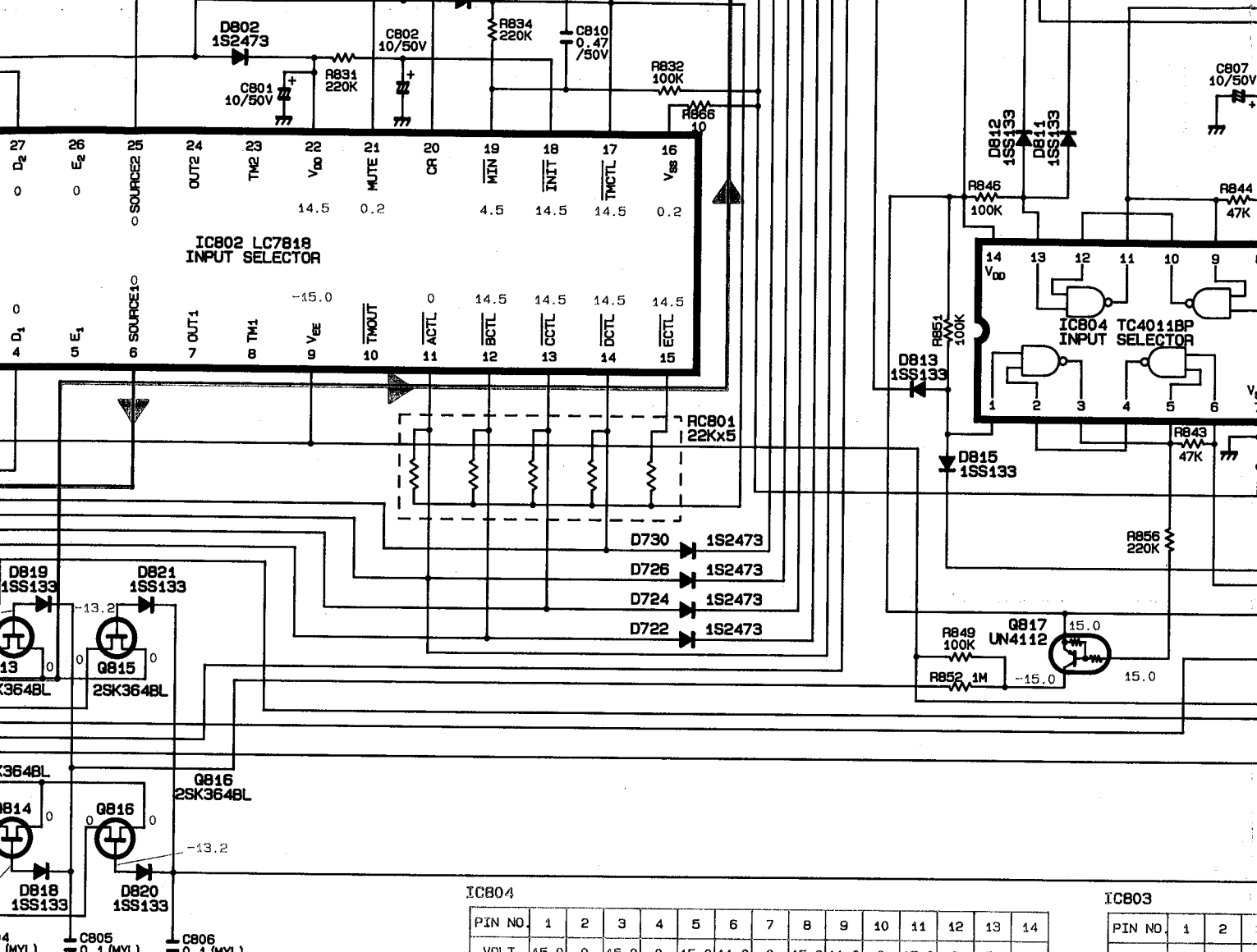
IC803

PIN NO.	1	2	3	4	5	6
VOLT.	15.0	15.0	0	0	15.0	15.



	3	4	5	6	7	8	9	10	11	12	13	14
.0	0	0	15.0	15.0	0	15.0	15.0	15.0	0	15.0	0	11.0


CN602B
PHONO SIGNAL
FROM PCB-2 EQ
PHONO
L
G
R
-15V
+15V
-Vcc
+Vcc
Page26 I-3
CN601B
FROM PCB-2 EQ
CD
VIDEO
Page26 C-5
D802 1S2473
C801 10/50V
IC802 LC INPUT SEL
SOURCE2
OUT2
TM2
SOURCE1
OUT1
TM1
D817 1SS133
D819 1SS133
D821 1SS133
Q811 2SK364BL
Q813 2SK364BL
Q815 2SK364BL
Q812 2SK364BL
Q814 2SK364BL
Q816 2SK364BL
D816 1SS133
D818 1SS133
D820 1SS133
C804 0.1 (MYL)
C805 0.1 (MYL)
C806 0.1 (MYL)
CN802B
CN802A
PCB-3 MONITOR
D883 1SS133
R878 1M
D861 1S2473
D865 1S2473
Q821 2SK364BL
Q825 2SK364BL
Q822 2SK364BL
Q826 2SK364BL
D862 1S2473
D866 1S2473
D884 1SS133
R883 100K
R882 1M
Q830 UN4112
C811 0.1 (MYL)
C813 0.1 (MYL)
C817 220p
C818 220p
REC OUT SIGNAL
R887 1K
R888 1K
R889 1K
R890 1K
IN
J4 TAPE2
J5 TAPE1
OUT
R869 1K
R870 1K
R859 1K
R860 1K
(I) (IB) (BB)

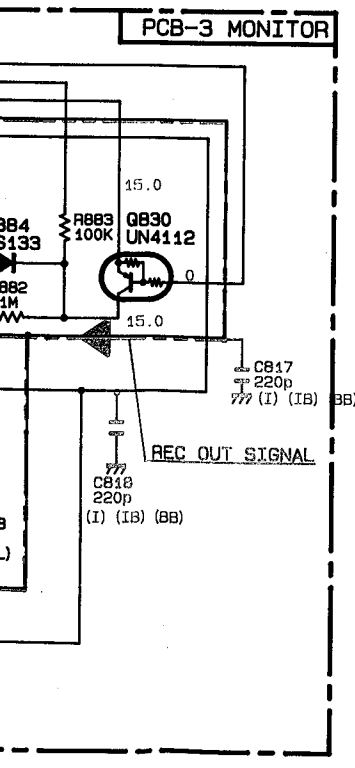


IC804

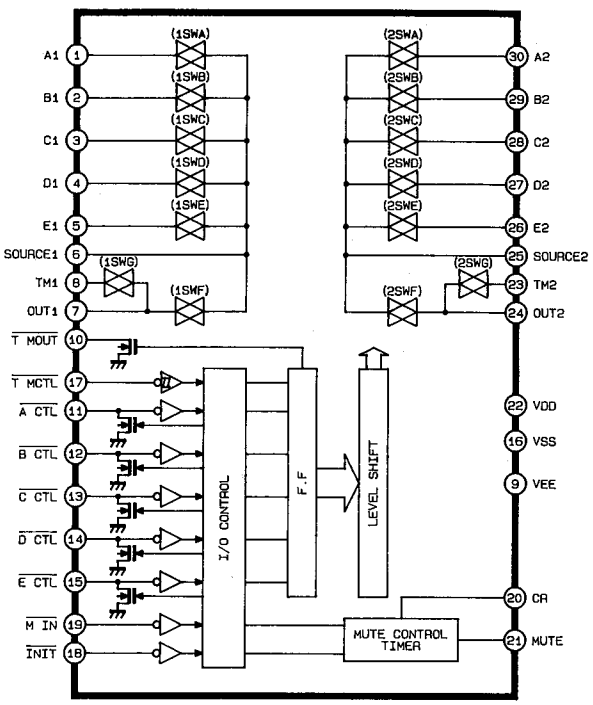
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VOLT.	15.0	0	15.0	0	15.0	11.0	0	15.0	11.0	0	15.0	0	15.0	15.0

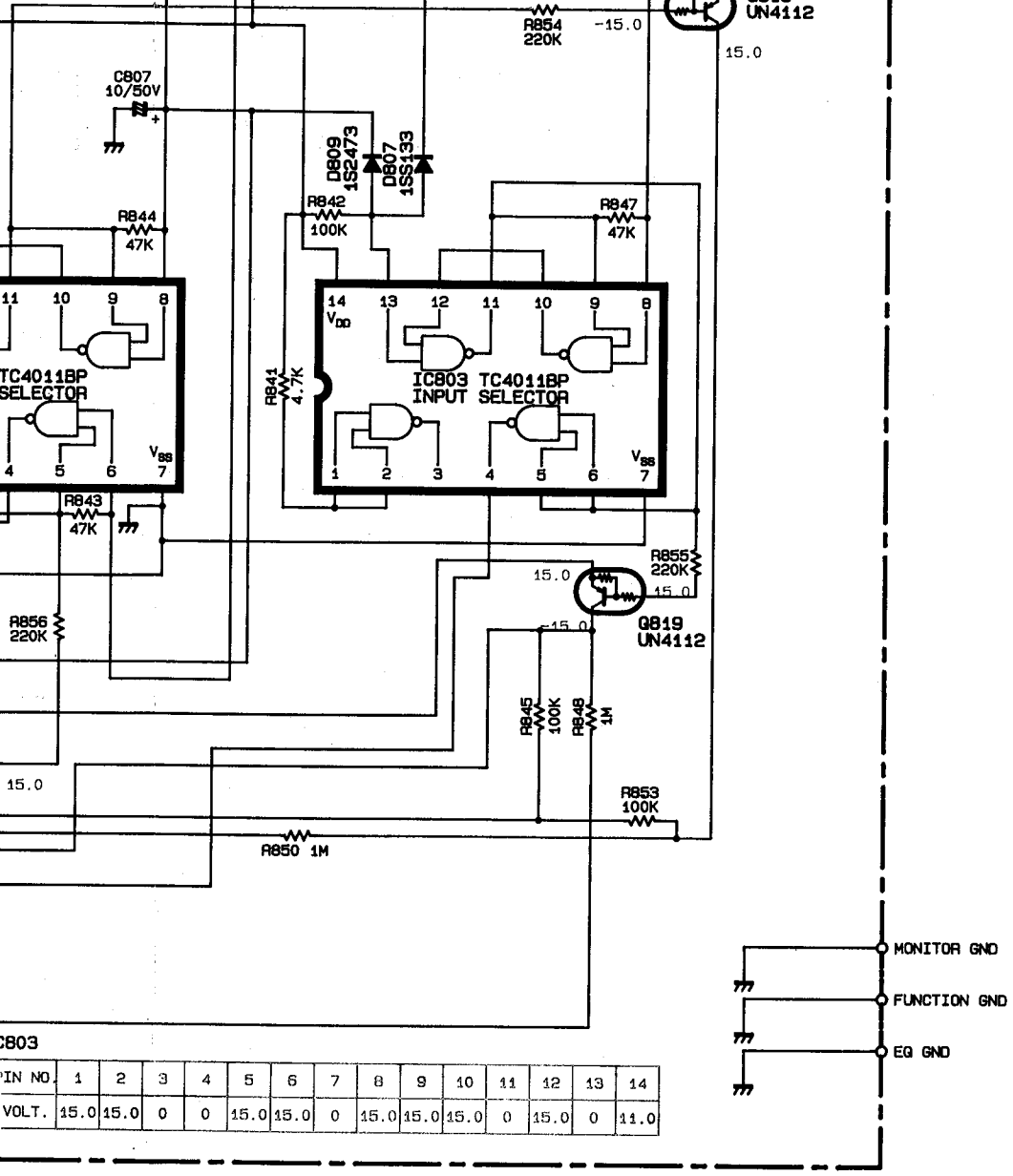
IC803

PIN NO.	1	2
VOLT.	15.0	15.0



IC802 : LC7818 Input Selector

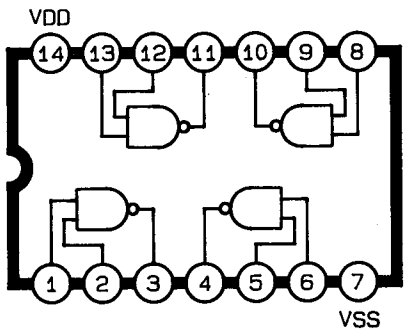




C803

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VOLT.	15.0	15.0	0	0	15.0	15.0	0	15.0	15.0	15.0	0	15.0	0	11.0

IC803, 804 : TC4011BP Input Selector



SCHEMATIC DIAGRAM

PCB-14 FRONT

TO PCB-1 TUNER Ⓐ
Page27 E-7

GND +5V SEEK P.SW R.IN MUTE STB CK SI SO REF -Vcc ST TUNE F GND OUT 5V
CN101B

D713 1SS133
C713 2.2/50V
R735 100K
C711 30P
C712 30P
X701
R721 4.7K
R722 2.2K
R725 2.2K
Muting Signal
R767 47k

IC701 TC9301AN-020 MICRO COMPUTER
42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22
5.2 5.7 5.2 2.6 0 0 0 0 0 0 2.9 5.7 5.6 5.0 0
-23.7 -23.7 -20.5 -20.5 -20.5 -7.8 -14.2 -20.5 -17.2 -24.2
0 -23.7 -23.7 -20.7 -20.5 -20.5 -20.5 -17.2 -17.2 -17.2 -20.6
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

C708 0.022
C709 47/25V
D707-D711 1S2473
D707 D708 D709 D710 D711
R719 100K

CC701 220Px7
R754 1K R755 1K R756 1K R757 1K R758 1K R760 1K R769 1K

D701 1S2473 <D0>
D702 1S2473 <D1>
D703 1S2473 <D2>
D704 1S2473 <D3>
D705 1S2473
D706 1S2473 <D5>
S11 M1 <K0>
S12 M2 <K1>
S13 M3 <K2>
S14 M4 <K3>
S15 M5
S16 M6
S17 M7
S18 M8
S20 SHIFT
S19 MEMO
S23 SEEK
S21 FM
S22 AM
S24 UP
S25 DOWN

FL701
1G 7G 6G 1G 5G 4G 1G 3G 2G 1G
P1 FM
P4 AM P2
P1 MHz
P4 KHz
P8 PRESET
P1 A P2 B
P9 STEREO
P10 TUNED
P8 SEEK
1 F1 2 F1 3 4 5 G6 6 G6 7 G6 8 G6 9 G6 10 G6 11 G6 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 P1 27 P2 28 P3 29 P4 30 P5 31 P6 32 P7 33 P8 34 P9 35 P10 36 37 38 F2 39 F2

Q802 2SA1309A (R)
Q801 2SA1309A (R)
D830 1S2473
D836 S221051
D835 S221051
S36
S35
R809 4.7K
R808 4.7K
R805 1K
D631-D634 S2410E1
D634 D633 D632 D631
S34 S33 S32 S31
R804 680 R803 680 R802 680 R801 680
R839 1K
D727 1SS133 D725 1SS133 D723 1SS133 D721 1SS133
D825 1SS133 D824 1SS133 D823 1SS133 D822 1SS133
R830 4.7K
R838 470
Q809 2SC3311A (R)

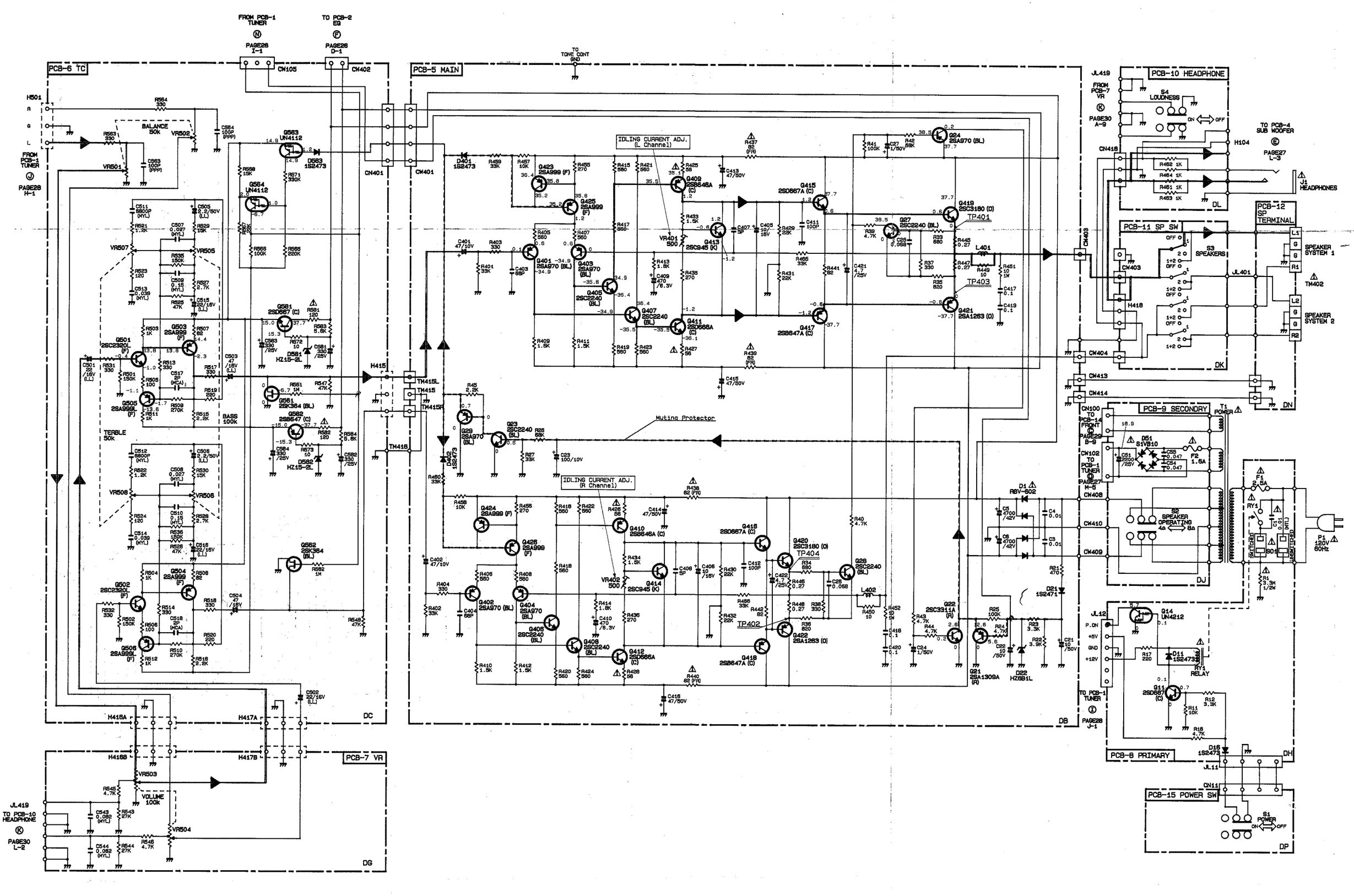
CN804A
+15V
GND
PHONO CD TU VIDEO MONI-RESET TAPE2 TAPE1 VIDEO TU CD PHONO
LED

FROM PCB-1 TUNER Ⓑ
Page28 G-1

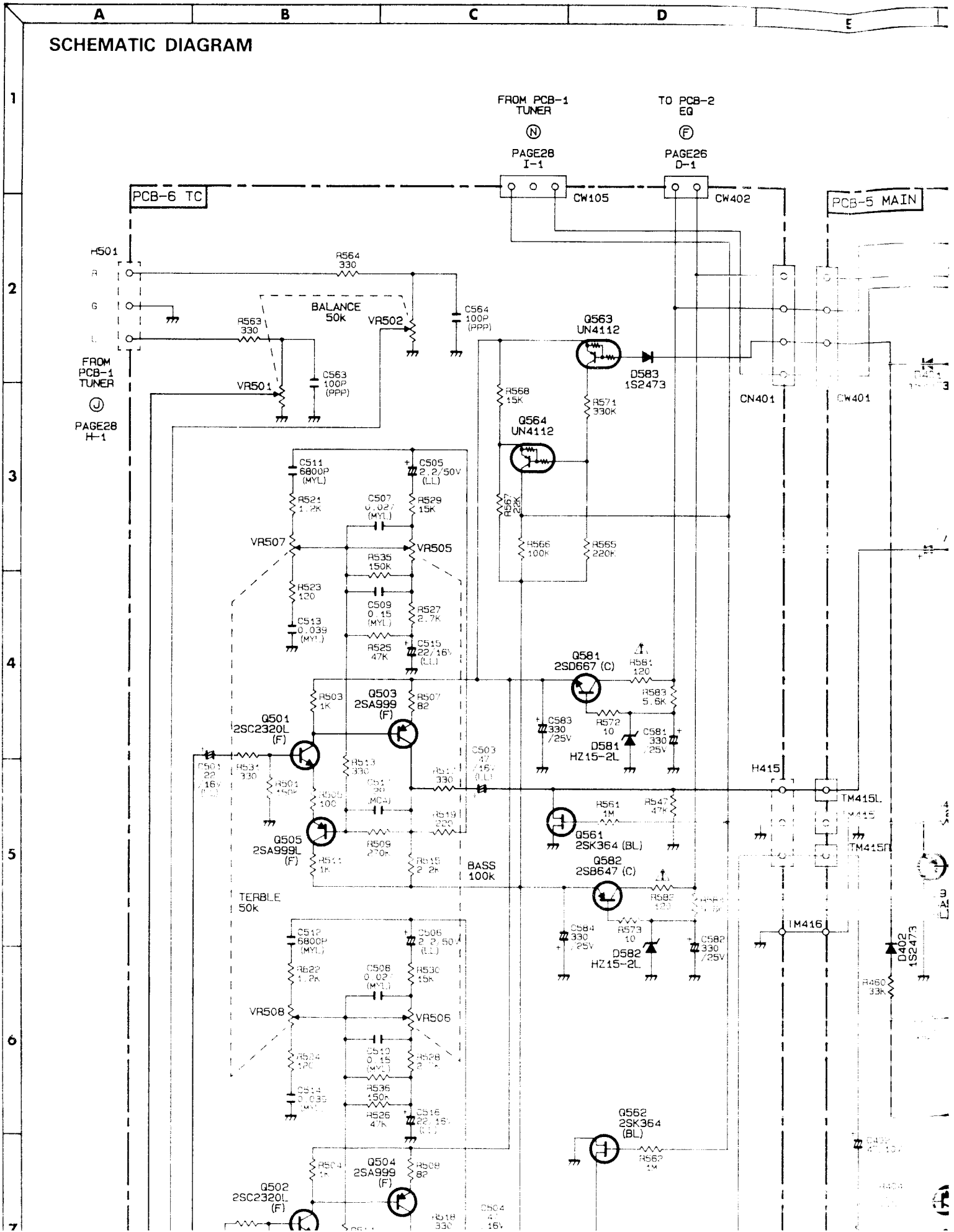
FROM PCB-9 SECONDRY Ⓒ
Page30 L-5

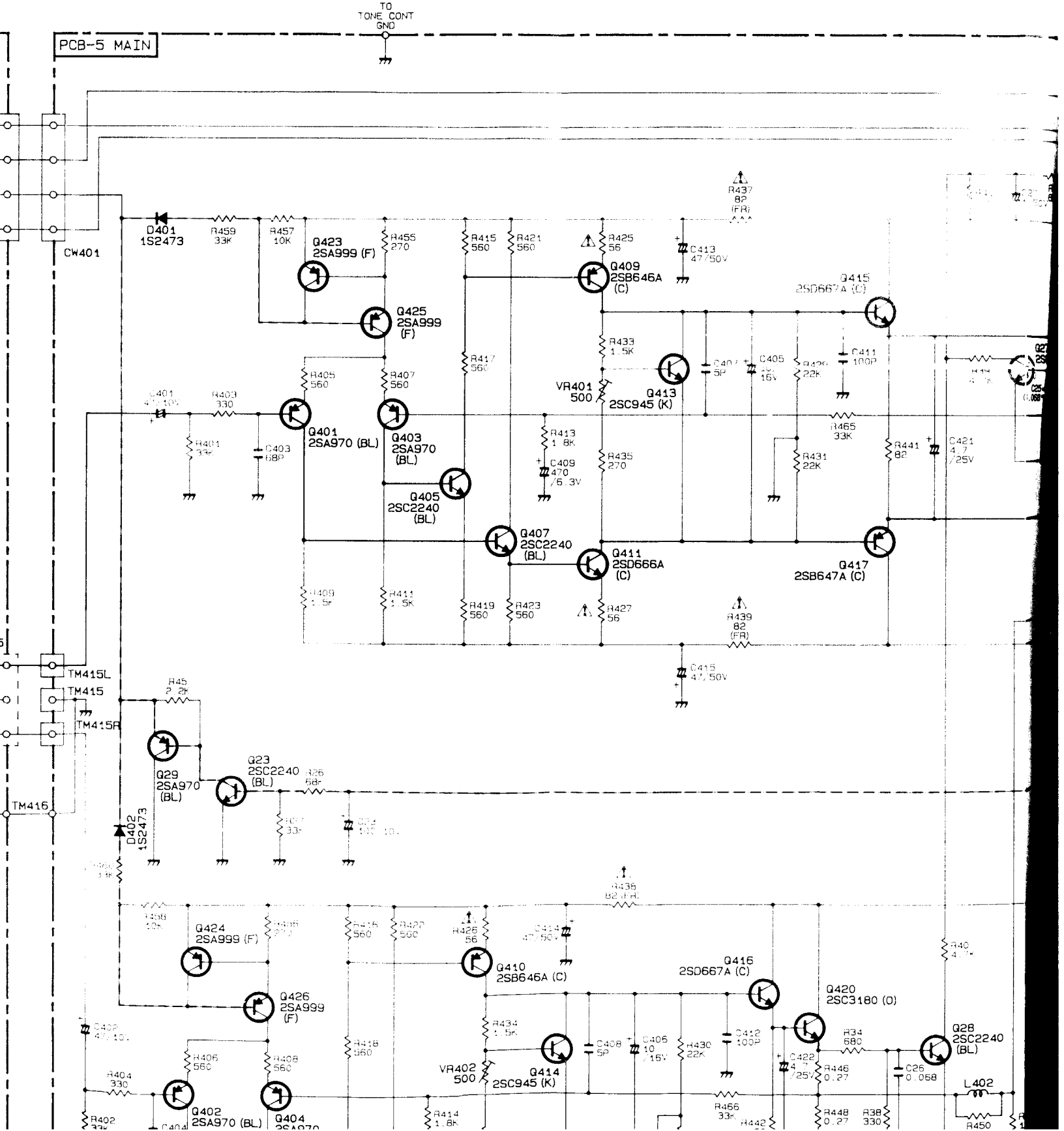
CW100

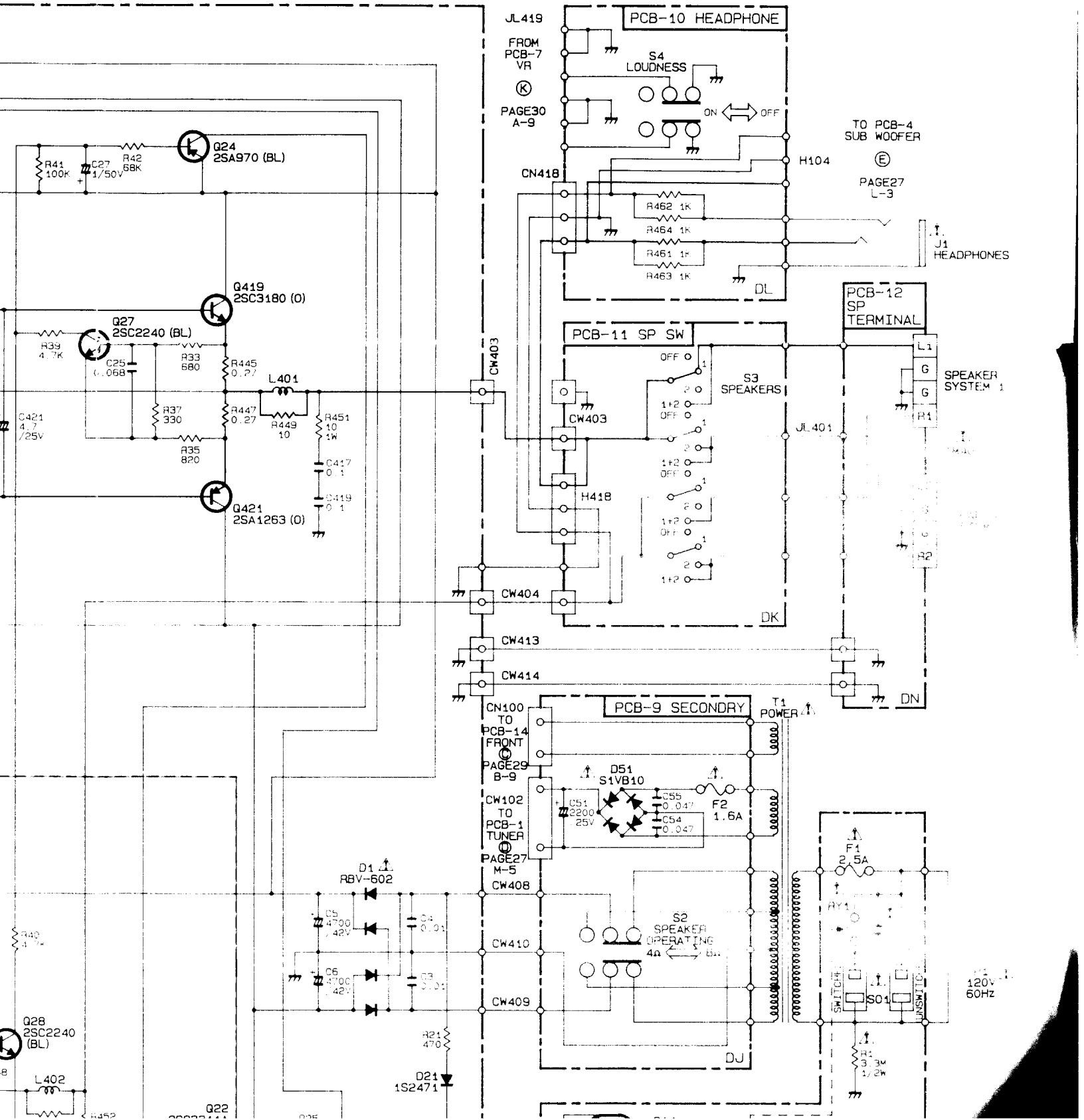
SCHEMATIC DIAGRAM

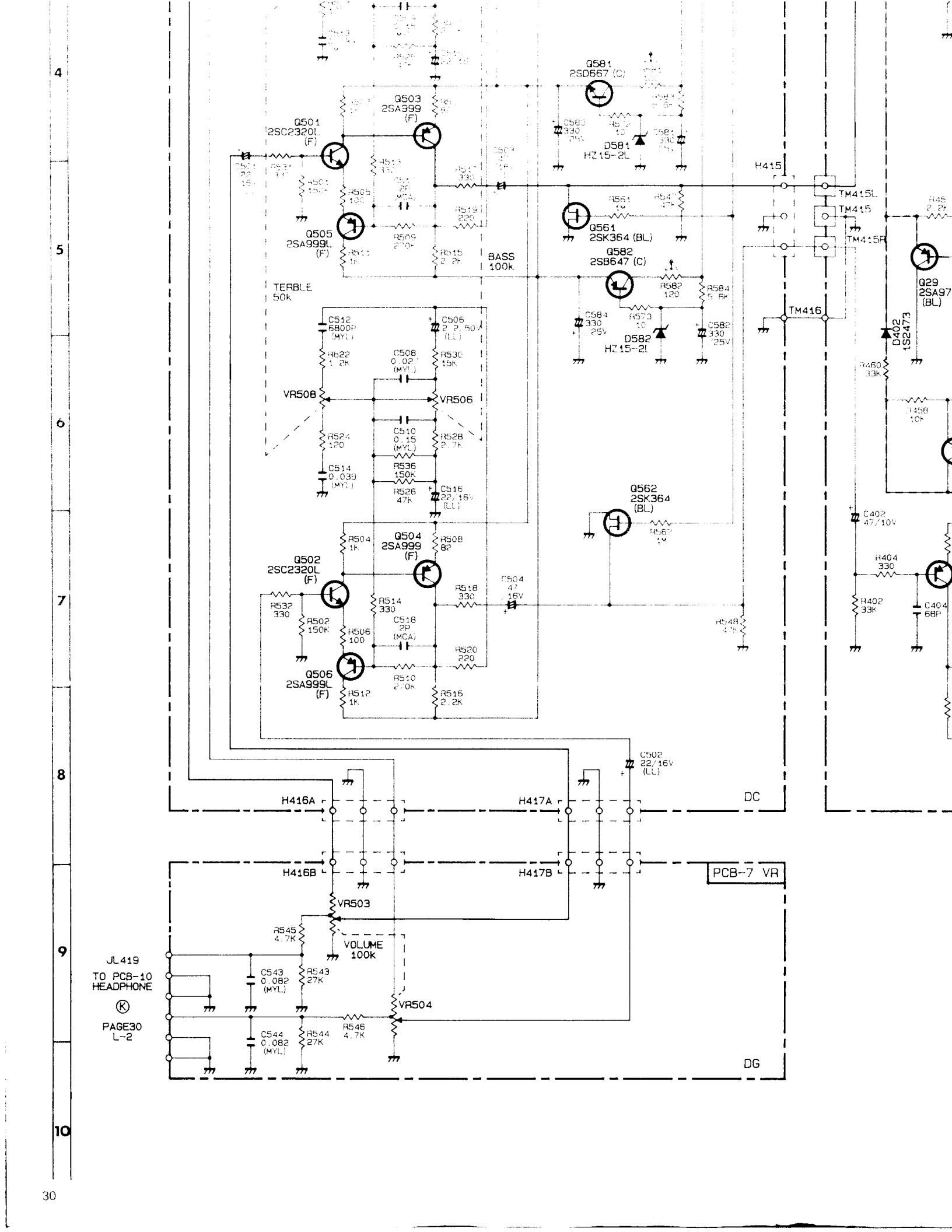


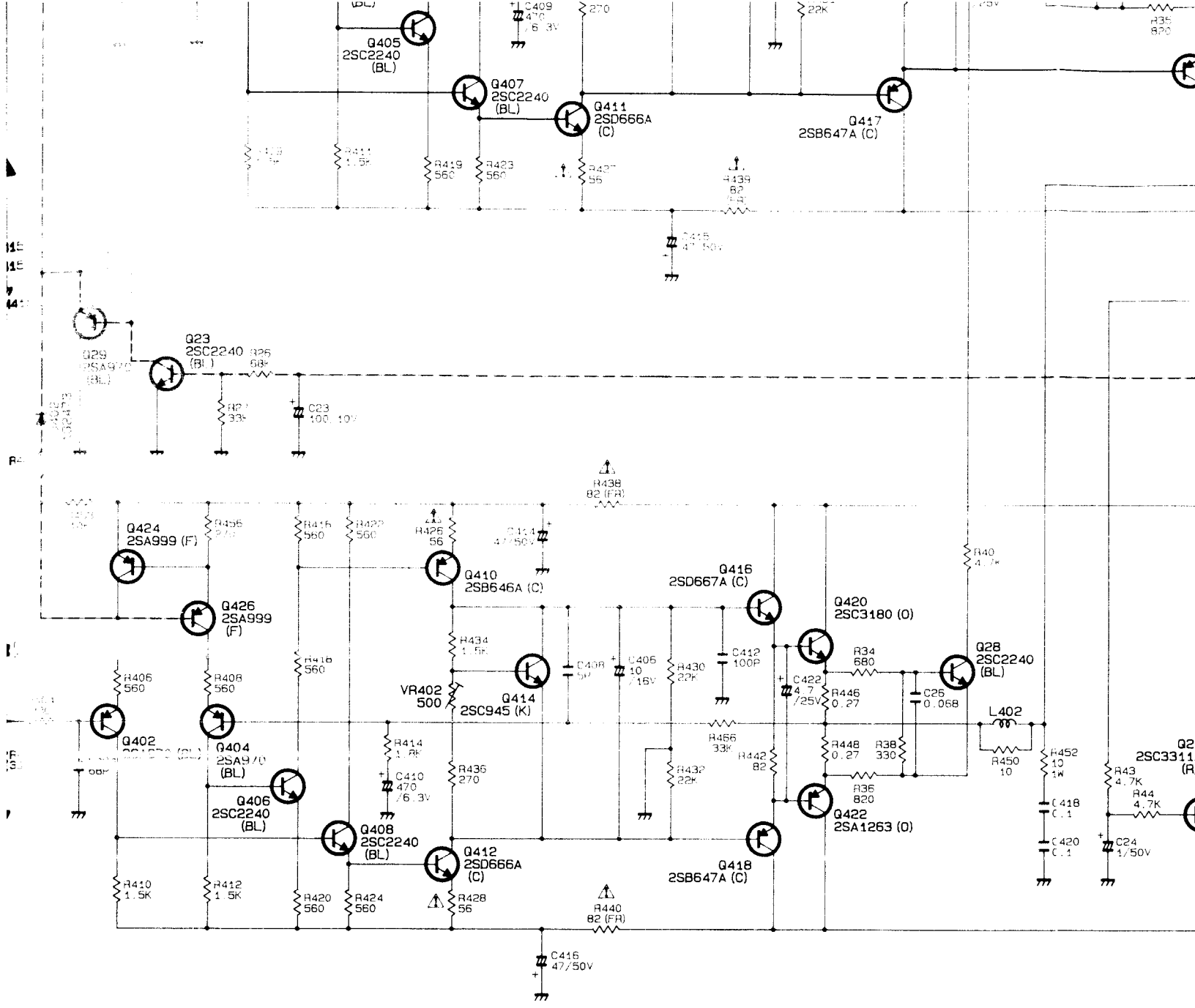
SCHEMATIC DIAGRAM

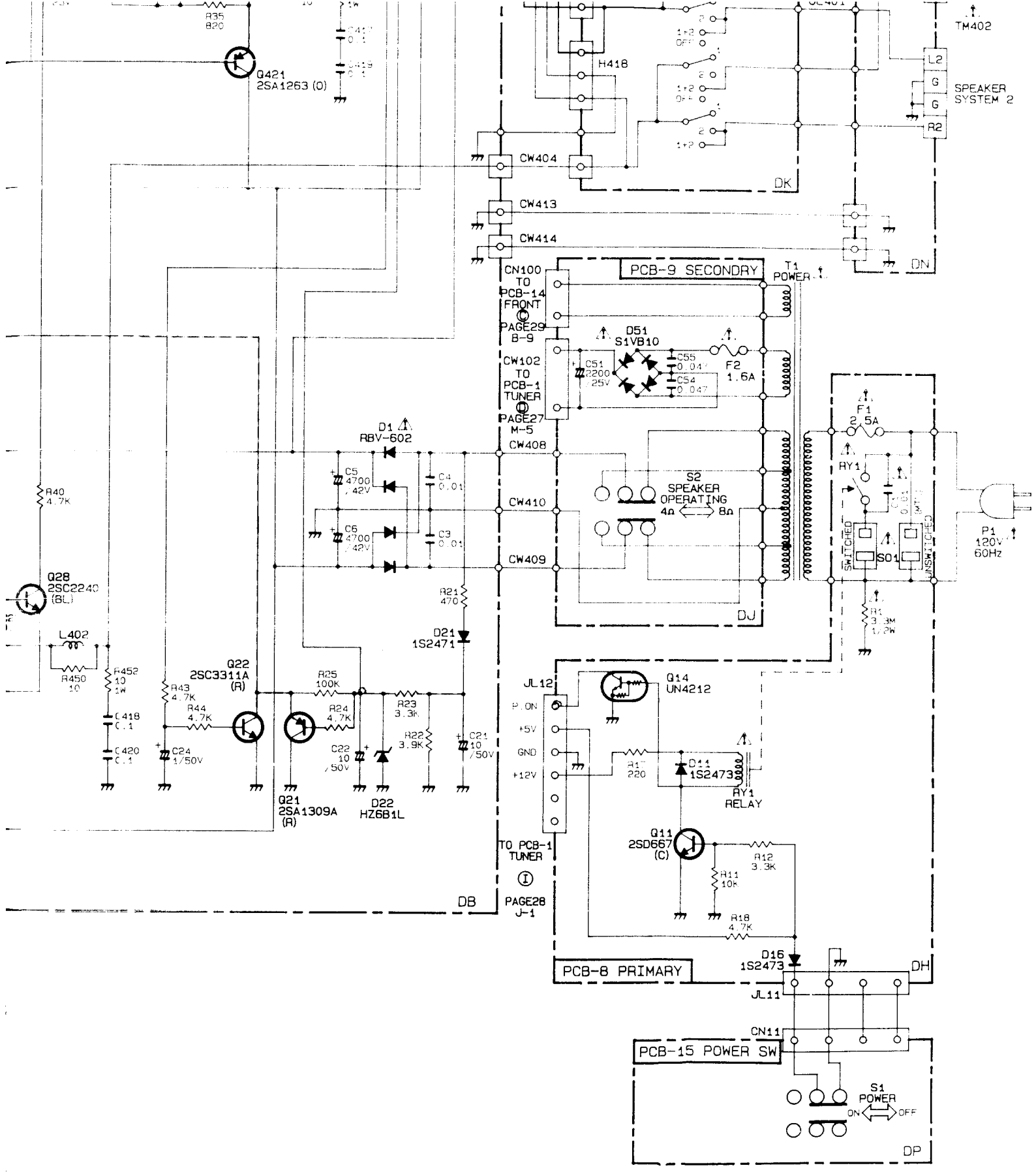



TO
TONE CONT
GND
PCB-5 MAIN
CW401
D401
1S2473
R459
33K
R457
10K
Q423
2SA999 (F)
R455
270
R415
560
R421
560
R425
56
R437
82
(FR)
C413
47/50V
Q409
2SB646A
(C)
Q415
2SD667A (C)
Q425
2SA999
(F)
R433
1.5K
R417
560
R405
560
R407
560
C401
47/10V
R403
330
VR401
500
Q413
2SC945 (K)
C407
5P
C405
16V
R429
22K
C411
100P
Q401
2SA970 (BL)
Q403
2SA970
(BL)
R401
33K
C403
68P
R413
1.8K
C409
470
/6.3V
R435
270
R465
33K
R431
22K
R441
82
C421
4.7
/25V
Q405
2SC2240
(BL)
Q407
2SC2240
(BL)
Q411
2SD666A
(C)
Q417
2SB647A (C)
R409
1.5K
R411
1.5K
R419
560
R423
560
R427
56
R439
82
(FR)
C415
47/50V
TM415L
TM415
TM415R
TM416
R45
2.2K
Q29
2SA970
(BL)
Q23
2SC2240
(BL)
R26
68K
D402
1S2473
R436
82 (FR)
R424
2SA999 (F)
R426
56
Q410
2SB646A (C)
Q416
2SD667A (C)
Q420
2SC3180 (O)
Q426
2SA999
(F)
R434
1.5K
C408
5P
C406
10
/16V
R430
22K
C412
100P
C422
4.7
/25V
R446
0.27
C26
0.068
Q28
2SC2240
(BL)
R34
680
R406
560
R408
560
R418
560
VR402
500
Q414
2SC945 (K)
R404
330
L402
R466
33K
R448
0.27
R38
330
R450
Q402
2SA970 (BL)
Q404
R414
1.8K

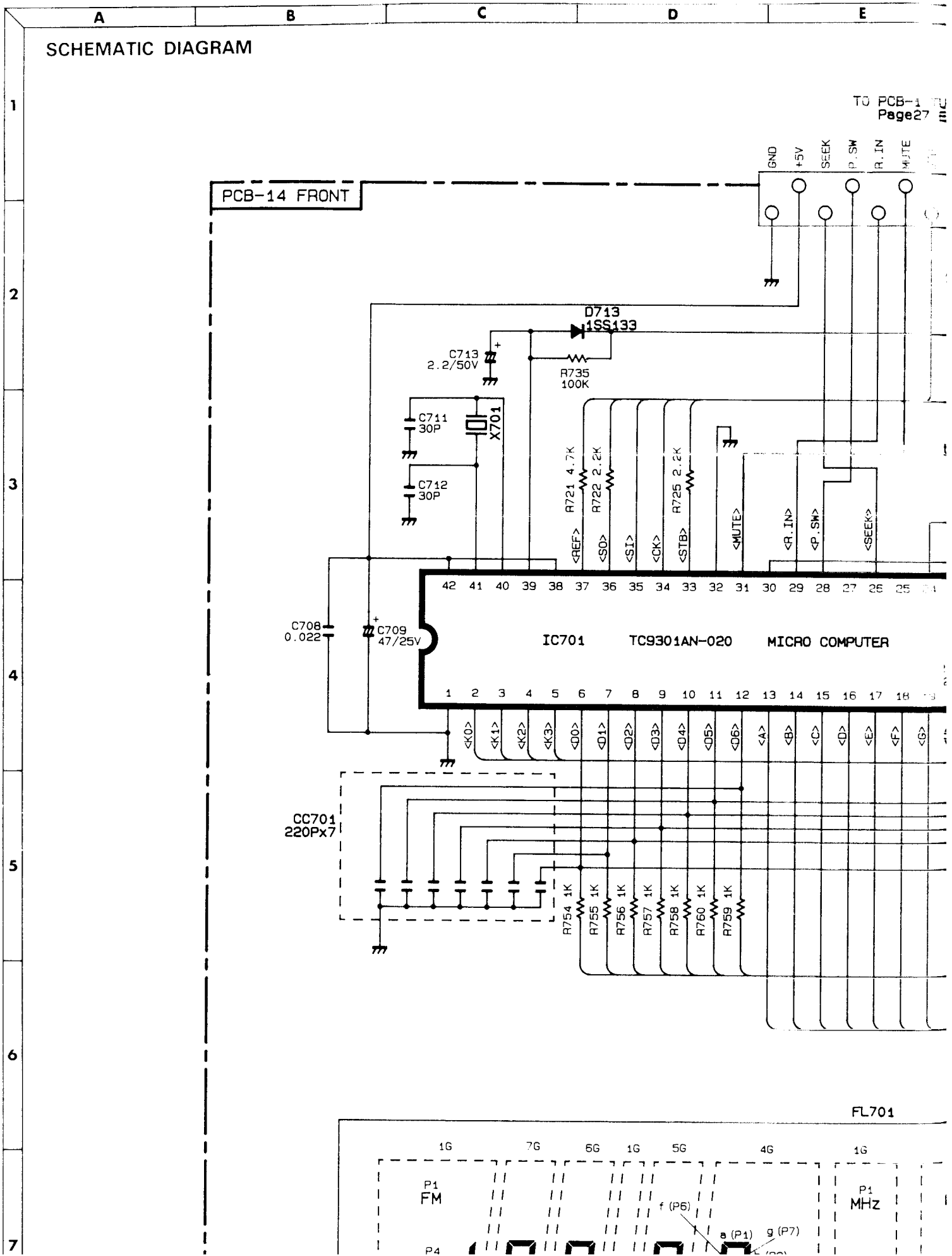

JL419
FROM PCB-7 VR
PAGE30 A-9
PCB-10 HEADPHONE
S4 LOUDNESS
ON OFF
TO PCB-4 SUB WOOFER
PAGE27 L-3
H104
CN418
R462 1K
R464 1K
R461 1K
R463 1K
J1 HEADPHONES
DL
PCB-12 SP TERMINAL
PCB-11 SP SW
S3 SPEAKERS
CW403
JL401
SPEAKER SYSTEM 1
H418
CW404
DK
CW413
CW414
DN
PCB-9 SECONDRY
T1 POWER
CN100 TO PCB-14 FRONT
PAGE29 B-9
CW102 TO PCB-1 TUNER
PAGE27 M-5
CW408
CW410
CW409
D51 S1VB10
C51 2200 25V
C55 0.047
C54 0.047
F2 1.6A
F1 2.5A
S2 SPEAKER OPERATING
4Ω 8Ω
SWITCH
S01
UNSWITCH
120V 60Hz
R1 3.3M 1/2W
DJ
D1 RBV-602
C5 4700 42V
C6 4700 42V
C4 0.01
C3 0.01
R21 470
D21 1S2471
Q24 2SA970 (BL)
R41 100K
C27 1/50V
R42 68K
Q419 2SC3180 (O)
Q27 2SC2240 (BL)
R39 4.7K
C25 0.068
R33 680
R445 0.27
L401
R37 330
R447 0.27
R449 10
R451 10 1W
C421 4.7 /25V
R35 820
C417 0.1
C419 0.1
Q421 2SA1263 (O)
Q28 2SC2240 (BL)
L402
Q22


Q581
2SD667 (C)
Q503
2SA999
(F)
Q501
2SC2320L
(F)
D581
HZ15-2L
H415
TM415L
TM415
TM415R
Q561
2SK364 (BL)
Q582
2SB647 (C)
BASS
100k
TERBLE
50k
D582
HZ15-2L
TM416
Q29
2SA97
(BL)
D402
1S2473
VR508
VR506
Q562
2SK364
(BL)
Q504
2SA999
(F)
Q502
2SC2320L
(F)
Q505
2SA999L
(F)
Q506
2SA999L
(F)
C502
22/16V
(LL)
H416A
H417A
DC
H416B
H417B
PCB-7 VR
VR503
VOLUME
100k
VR504
JL419
TO PCB-10
HEADPHONE
PAGE30
L-2
DG


Q405
2SC2240
(BL)
Q407
2SC2240
(BL)
Q411
2SD666A
(C)
Q417
2SB647A (C)
R419
560
R423
560
R427
56
R439
82
C415
47/50V
Q23
2SC2240
(BL)
R26
68K
R27
33K
C23
100, 10V
R438
82 (FR)
Q424
2SA999 (F)
Q426
2SA999
(F)
R416
560
R420
560
R426
56
Q410
2SB646A (C)
C414
47/50V
Q416
2SD667A (C)
R40
4.7K
Q420
2SC3180 (O)
R34
680
Q28
2SC2240
(BL)
R434
1.5K
VR402
500
Q414
2SC945 (K)
C408
5P
C406
10
/16V
R430
22K
C412
100P
C422
4.7
/25V
R446
0.27
C25
0.068
L402
R406
560
R408
560
R466
33K
R442
82
R448
0.27
R38
330
R450
10
R452
10
1W
R43
4.7K
R44
4.7K
Q402
Q404
2SA970
(BL)
R414
1.8K
C410
470
/6.3V
R436
270
R432
22K
R36
820
Q422
2SA1263 (O)
C418
0.1
C420
0.1
C24
1/50V
Q406
2SC2240
(BL)
Q408
2SC2240
(BL)
Q412
2SD666A
(C)
Q418
2SB647A (C)
R410
1.5K
R412
1.5K
R420
560
R424
560
R428
56
R440
82 (FR)
C416
47/50V


R35
820
Q421
2SA1263 (O)
H418
TM402
SPEAKER
SYSTEM 2
L2
G
G
R2
CW404
CW413
CW414
DK
DN
CN100
TO
PCB-14
FRONT
PAGE29
B-9
PCB-9 SECONDRY
T1
POWER
D51
S1VB10
CW102
TO
PCB-1
TUNER
PAGE27
M-5
C51
2200
/25V
C55
0.047
C54
0.047
F2
1.6A
F1
2.5A
RY1
S2
SPEAKER
OPERATING
4Ω ⟺ 8Ω
SW1TCHED
S01
UNSW1TCHED
P1
120V
60Hz
D1
RBV-602
CW408
CW410
CW409
C5
4700
/42V
C6
4700
/42V
C4
0.01
C3
0.01
R40
4.7K
Q28
2SC2240
(BL)
L402
R450
10
R452
10
1W
R43
4.7K
R44
4.7K
Q22
2SC3311A
(R)
R25
100K
R24
4.7K
R23
3.3K
R22
3.9K
R21
470
D21
1S2471
C418
0.1
C420
0.1
C24
1/50V
C22
10
/50V
C21
10
/50V
Q21
2SA1309A
(R)
D22
HZ6B1L
DB
JL12
P.ON
+5V
GND
+12V
Q14
UN4212
R1
220
D11
1S2473
RY1
RELAY
Q11
2SD667
(C)
R12
3.3K
R11
10K
R18
4.7K
TO PCB-1
TUNER
PAGE28
J-1
PCB-8 PRIMARY
D16
1S2473
DH
JL11
CN11
PCB-15 POWER SW
S1
POWER
ON
OFF
DP

SCHEMATIC DIAGRAM



TO PCB-1 TUNER Ⓐ
Page27 E-7

GND +5V SEEK P.SW R.IN MUTE STB CK SI SO REF -Vcc ST TUNE F GND OUT 5V

CN101B

R767
47k

<R.IN> <P.SW> <SEEK>

30 29 28 27 26 25 24 23 22

MICRO COMPUTER

13 14 15 16 17 18 19 20 21

<A> <B> <C> <D> <E> <F> <G> <H>

D707-D711
1S2473

D707 D708 D709 D710 D711

R719
100K

FL701

4G 1G 3G 2G 1G

P1
MHz

P8
PRESET

P9
STEREO

g (P7)
(P2)

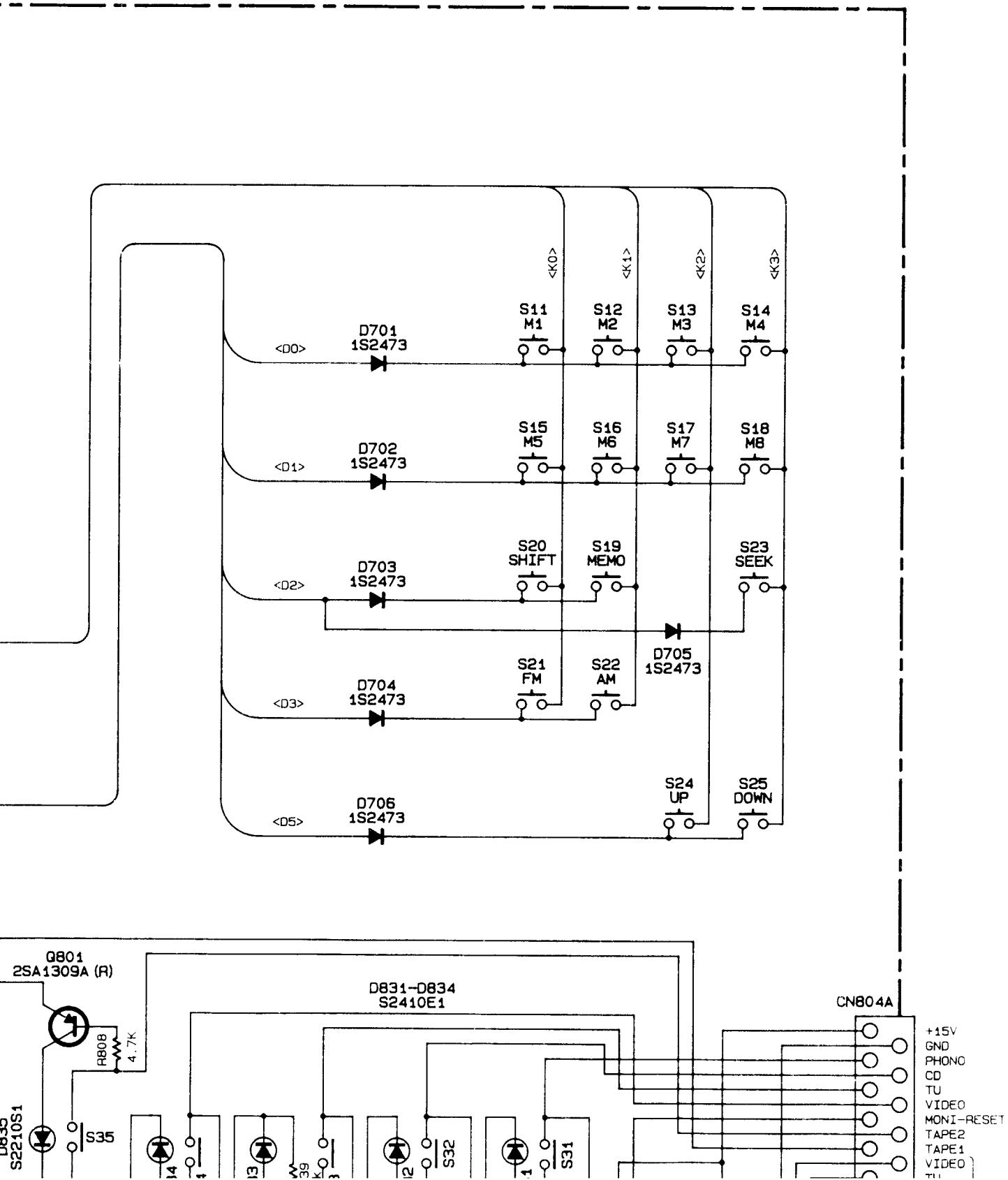
Q802
2SA1309A

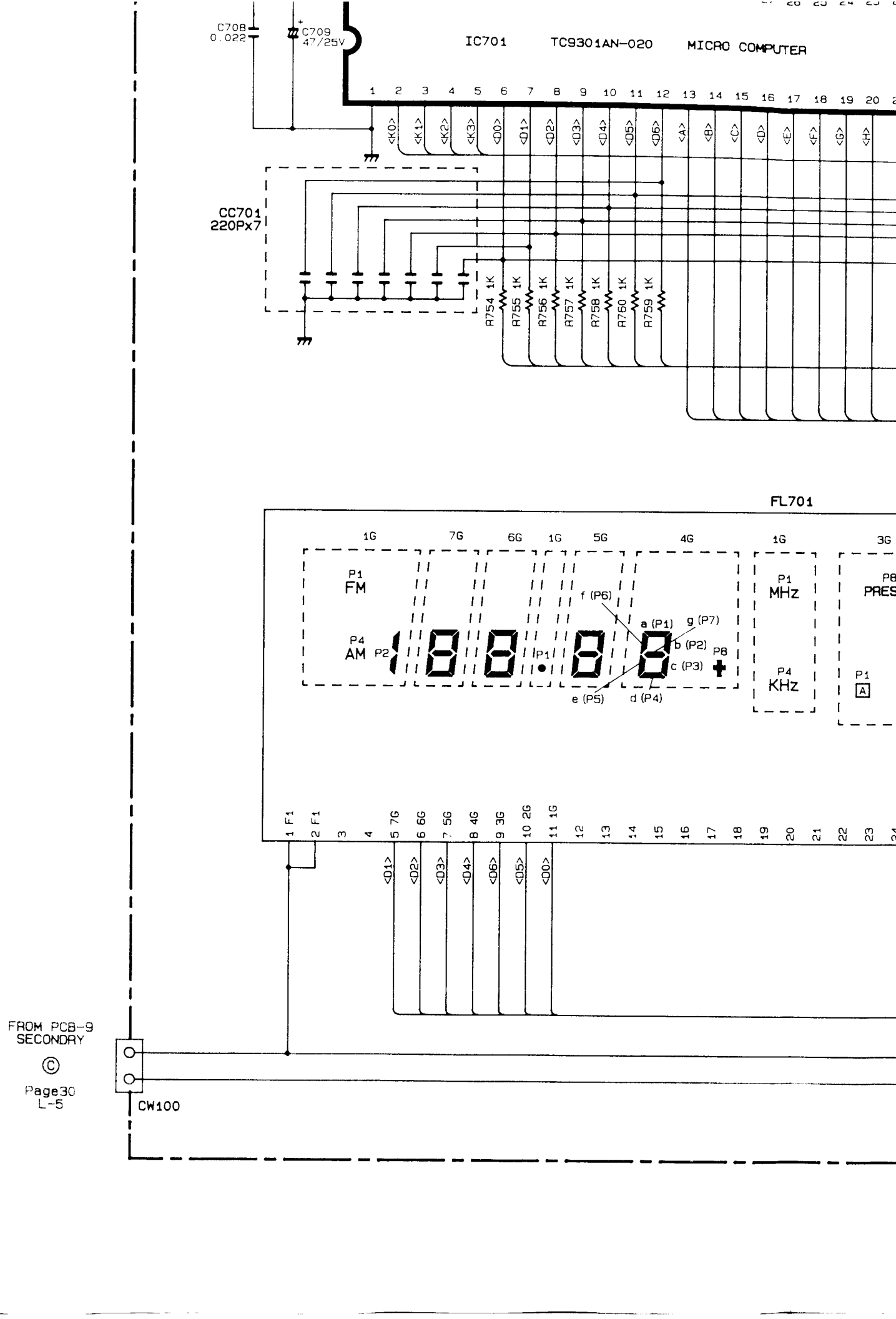
Q801

D830
1S2473

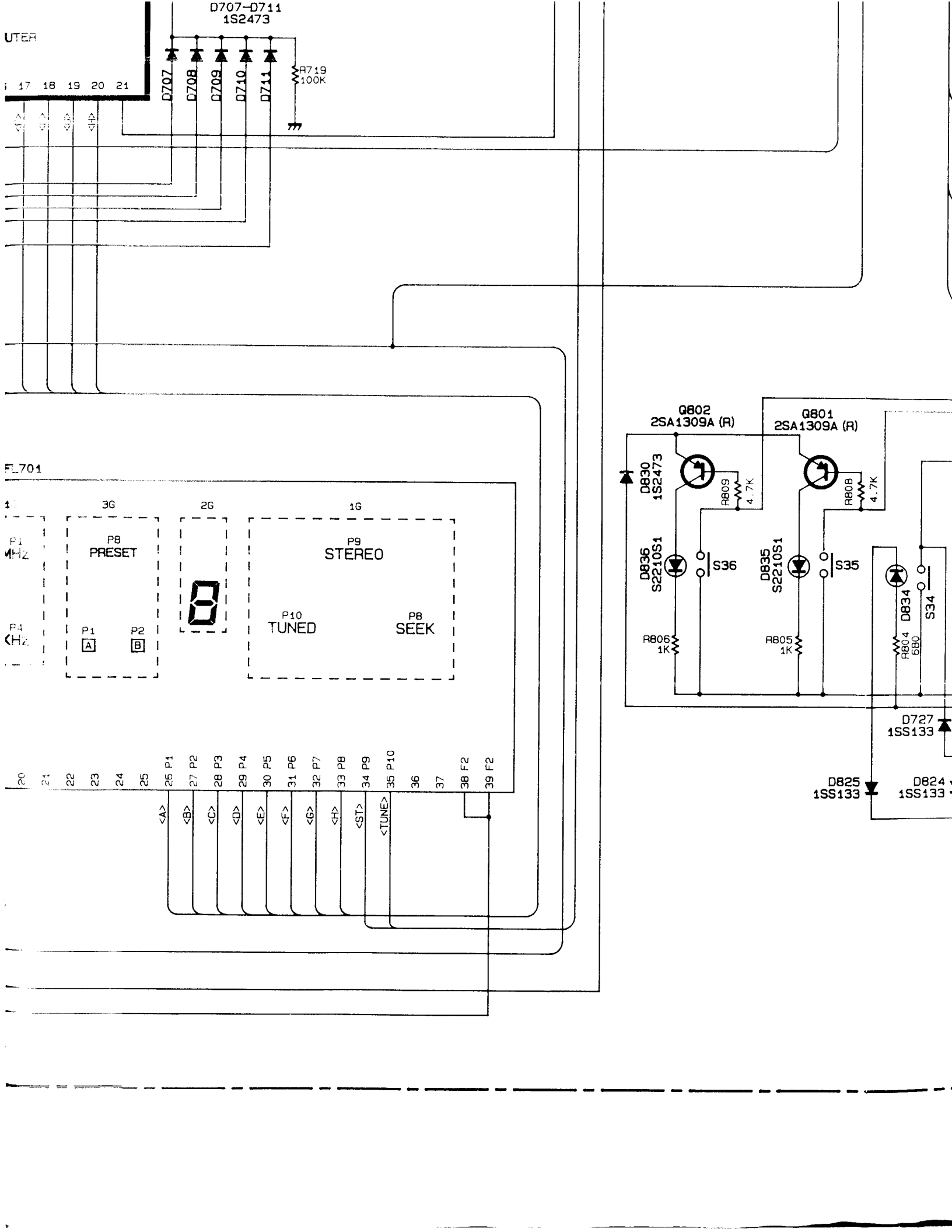
R805
4.7K

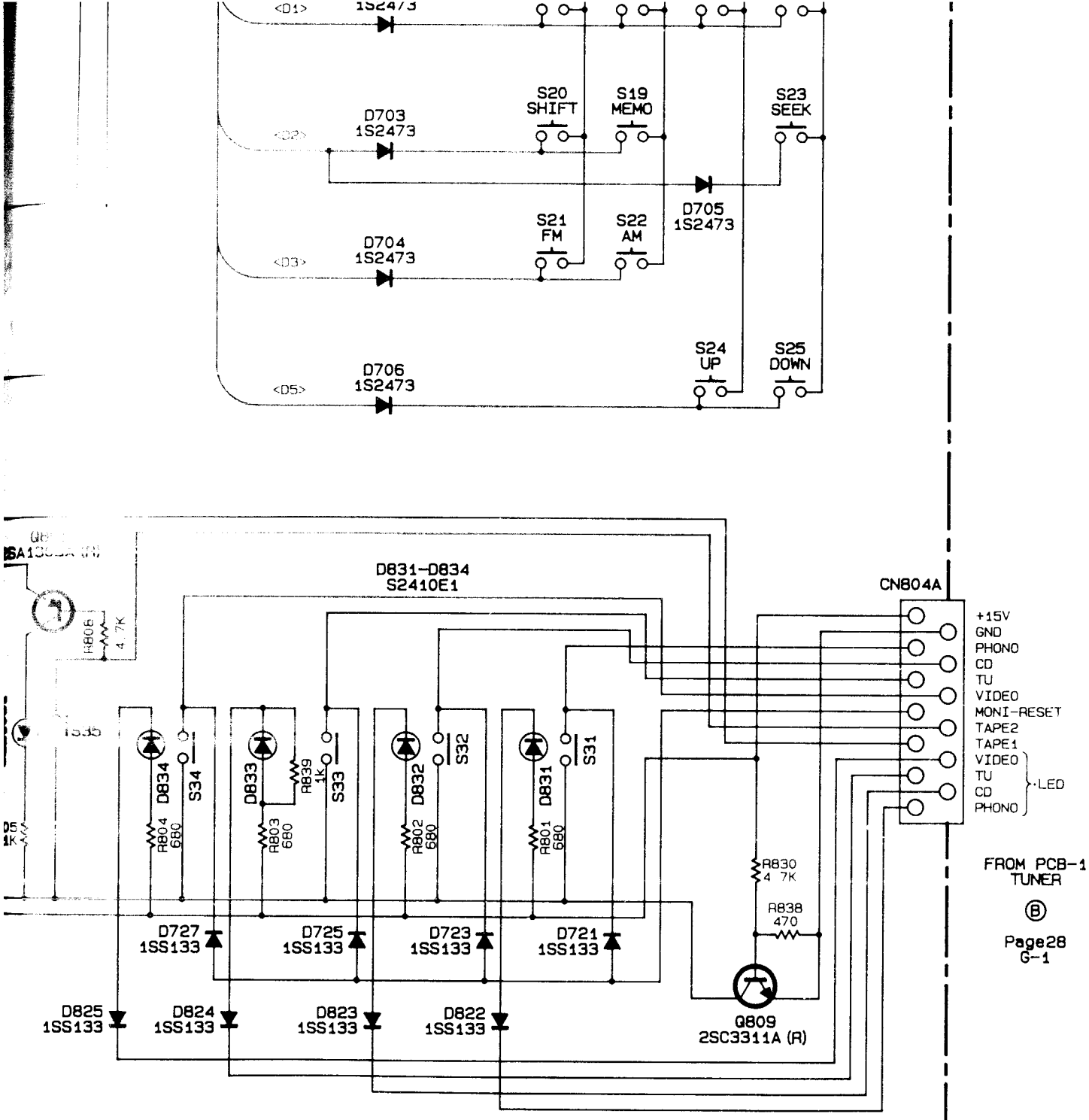
J K L M N


<K0>
<K1>
<K2>
<K3>
<D0>
<D1>
<D2>
<D3>
<D5>
D701 1S2473
D702 1S2473
D703 1S2473
D704 1S2473
D705 1S2473
D706 1S2473
S11 M1
S12 M2
S13 M3
S14 M4
S15 M5
S16 M6
S17 M7
S18 M8
S20 SHIFT
S19 MEMO
S23 SEEK
S21 FM
S22 AM
S24 UP
S25 DOWN
Q801 2SA1309A (R)
R808 4.7K
D831-D834 S2410E1
D835 S2210S1
S35
S32
S31
CN804A
+15V
GND
PHONO
CD
TU
VIDEO
MONI-RESET
TAPE2
TAPE1
VIDEO


C708
0.022
C709
47/25V
IC701
TC9301AN-020
MICRO COMPUTER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
<K0> <K1> <K2> <K3> <D0> <D1> <D2> <D3> <D4> <D5> <D6> <A> <B> <C> <D> <E> <F> <G> <H>
CC701
220Px7
R754 1K
R755 1K
R756 1K
R757 1K
R758 1K
R760 1K
R759 1K
FL701
1G 7G 6G 1G 5G 4G 1G 3G
P1
FM
P4
AM
P2
P1
P8
f (P6)
a (P1)
g (P7)
b (P2)
c (P3)
e (P5)
d (P4)
P1
MHz
P4
KHz
P1
A
1 F1
2 F1
3
4
5 7G
6 6G
7 5G
8 4G
9 3G
10 2G
11 1G
12 13 14 15 16 17 18 19 20 21 22 23
<D1> <D2> <D3> <D4> <D6> <D5> <D0>
FROM PCB-9
SECONDRY
CW100

©


D707-D711
1S2473
UTER
17 18 19 20 21
D707
D708
D709
D710
D711
R719
100K
Q802
2SA1309A (R)
Q801
2SA1309A (R)
D830
1S2473
R809
4.7K
R808
4.7K
D836
S2210S1
S36
D835
S2210S1
S35
D834
S34
R806
1K
R805
1K
R804
680
D727
1SS133
D825
1SS133
D824
1SS133
FL701
3G
2G
1G
P8
PRESET
P1
P2
P9
STEREO
P10
TUNED
P8
SEEK
20 21 22 23 24 25 26 P1 27 P2 28 P3 29 P4 30 P5 31 P6 32 P7 33 P8 34 P9 35 P10 36 37 38 F2 39 F2
<A>
<B>
<C>
<D>
<E>
<F>
<G>
<H>
<ST>
<TUNE>


<D1>
1S2473
S20
SHIFT
S19
MEMO
S23
SEEK
D703
1S2473
<D2>
D705
1S2473
S21
FM
S22
AM
D704
1S2473
<D3>
S24
UP
S25
DOWN
D706
1S2473
<D5>
D831-D834
S2410E1
CN804A
+15V
GND
PHONO
CD
TU
VIDEO
MONI-RESET
TAPE2
TAPE1
VIDEO
TU
CD
PHONO
LED
R806
4.7K
D834
S34
D833
S33
R839
1k
D832
S32
D831
S31
R804
680
R803
680
R802
680
R801
680
R830
4.7K
R838
470
D727
1SS133
D725
1SS133
D723
1SS133
D721
1SS133
D825
1SS133
D824
1SS133
D823
1SS133
D822
1SS133
Q809
2SC3311A (R)
FROM PCB-1
TUNER
B
Page28
G-1